

THE INDIAN EMPIRE
PREPARED FOR
THE IMPERIAL GAZETTEER OF INDIA
BY J G BARTHOLOMEW F.R.G.S.
British India RED
Territories permanently administered by the Government of India PINK
Native States, and Territories (YELLOW (or GREEN
Railways
The figures indicate heights in feet
AFGHANISTAN
BALUCHISTAN
KASHMIR
PUNJAB
RAJPUTANA
UNITED PROVINCES
NEPAL
BHUTAN
EAST BENGAL AND ASSAM
BENGAL
CENTRAL INDIA
CENTRAL PROVINCES
BOMBAY
HYDERABAD
NIZAMS DOMINIONS
MADRAS
MYSORE
BURMA
TIBET
CHANG TANG
KHAM
YUN NAN
CEYLON
ARABIAN SEA
BAY OF BENGAL
Andaman Islands
Nicobar Islands
Mergui Archipelago
Laccadive Islands
Maldive Islands
CALCUTTA
Longitude East of Greenwich

THE IMPERIAL GAZETTEER OF INDIA

VOL. XXIII

SINGHBHŪM TO TRASHI-CHÖD-ZONG

NEW EDITION

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INTRODUCTORY NOTES

NOTES ON TRANSLITERATION

Vowel-Sounds

a has the sound of *a* in 'woman.'
ā has the sound of *a* in 'father.'
e has the vowel-sound in 'grey.'
i has the sound of *i* in 'pin.'
ī has the sound of *i* in 'police.'
o has the sound of *o* in 'bone.'
u has the sound of *u* in 'bull.'
ū has the sound of *u* in 'flute.'
ai has the vowel-sound in 'mine.'
au has the vowel-sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel-sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European ear distinguishes these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q*, which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds :—

aw has the vowel-sound in 'law.'

ö and ü are pronounced as in German.

gy is pronounced almost like *j* in 'jewel.'

ky is pronounced almost like *ch* in 'church.'

th is pronounced in some cases as in 'this,' in some cases as in 'thin.'

w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *yuwa* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places—e. g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India ; but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

NOTES ON MONEY, PRICES, WEIGHTS AND MEASURES

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2*s*., or one-tenth of a £ ; and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1*s*. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to *1s. 4d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of *1s. 4d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 $-\frac{1}{3}$ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as $1\frac{1}{2}d.$; it may now be considered as exactly corresponding to *1d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at *1s. 4d.*: 1 seer per rupee = (about) 3 lb. for *2s.*; 2 seers per rupee = (about) 6 lb. for *2s.*; and so on.

The name of the unit for square measurement in India generally is the *bigha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

IMPERIAL GAZETTEER OF INDIA

VOLUME XXIII

Singhbhūm.—District in the south-east of the Chotā Nāgpur Division of Bengal, lying between 21° 58′ and 22° 54′ N. and 85° 0′ and 86° 54′ E., with an area of 3,891[1] square miles. It is bounded on the north by the Districts of Rānchī and Mānbhūm; on the east by Midnapore; on the south by the Mayūrbhanj, Keonjhar, and Bonai States; and on the west by Rānchī and the Gāngpur State. The boundaries follow the crests of the unnamed hill-ranges which wall in the District on every side, save for short distances where they are marked by the Subarnarekhā and Baitaranī rivers.

Physical aspects.

Singhbhūm ('the land of the Singh family' of PORĀHĀT) comprises the Government estate of the KOLHĀN in the south-east, the revenue-paying estate of Dhalbhūm (Dhal being the *zamīndār's* patronymic) in the east, and the revenue-free estate of Porāhāt in the west, while the States of SARAIKELĀ and KHARSĀWĀN lie in the north, wedged in between Porāhāt and Dhalbhūm. The District forms part of the southern fringe of the Chotā Nāgpur plateau; and the western portion is very hilly, especially in the north, where the highest points have an altitude of more than 2,500 feet, and in Saranda *pīr* in the south-west, where the mountains culminate in a grand mass which rises to a height of 3,500 feet. Outlying ranges stretch thence in a north-easterly direction to a point about 7 miles north-west of Chaibāsa. Smaller ranges are frequently met with, chiefly along the northern marches of Saraikelā and Kharsāwān and in the south of Dhalbhūm on the confines of the Mayūrbhanj State; but in general the eastern and east-central parts of the District, although broken and undulating, are comparatively open. The Singhbhūm hills present an outline of sharp-backed ridges and conical peaks, which are covered with forest wherever it is protected by the Forest department; elsewhere the trees have been ruthlessly

[1] This figure, which differs from that shown in the *Census Report* of 1901, was supplied by the Surveyor-General.

cut, and the hill-sides are rapidly becoming bare and rocky. Among the mountains the scenery is often beautiful. The mountains west of Chaibāsa form the watershed which drains north-eastwards into the SUBARNAREKHĀ and south and west into the BRĀHMANĪ river. The Subarnarekhā, which flows through the whole length of Dhalbhūm, receives on its right bank the Sanjai, which drains Porāhāt, Kharsāwān, and Saraikelā. The Kodkai rises in Mayūrbhanj State, and with its affluent the Raro, on whose bank Chaibāsa town is situated, drains the north of the Kolhān, and after passing through Saraikelā, joins its waters with the Sanjai. The Kāro and the Koel rivers drain the west of the District, and flow westwards into the Brāhmanī river, which they join in the Gāngpur State. The beds of all the rivers are strewn with boulders, which impede navigation, and the banks are generally steep and covered with scrub jungle; but alluvial flats are deposited in some of the reaches, where vegetables and tobacco are grown. The Phuljhur river bursts out of Rānchī District into Singhbhūm in a cascade which forms a pool supposed to be unfathomable, and is the subject of various legends; similar pools in the Baitaranī river on the borders of Keonjhar are held sacred, and at one about 2 miles from Jaintgarh Brāhmans have established a shrine, where Hindu pilgrims bathe.

The District is occupied almost entirely by the Archaean group, a vast series of highly altered rocks, consisting of quartzites, quartzitic sandstones, slates of various kinds, sometimes shaly, mica-schists, metamorphic limestones, ribboned ferruginous jaspers, talcose and chloritic schists, the last passing into potstones, basic volcanic lavas, and ash-beds mostly altered to hornblendic schists, greenstones, and epidiorites. East and south of Chaibāsa there is a large outcrop of a massive granitic gneiss, resembling that of Bundelkhand, and traversed in the same way by huge dikes of basic rocks. Laterite is found in many places. In the east it largely covers the older rocks and is in its turn concealed by alluvium [1].

Singhbhūm lies within the zone of deciduous-leaved forest and within the Central India *sāl* tract, with a temperature attaining 115° in the shade, and mountains rising to 3,000 feet with scorched southern slopes and deep damp valleys: its flora contains representatives of dry hot countries, with plants characteristic of the moist tracts of Assam. On rocks, often too hot to be touched with the hand, are found *Euphorbia Nivulia*, *Sarcostemma*, *Sterculia urens*, *Boswellia serrata*, and the yellow cotton-tree (*Cochlospermum Gossypium*), while the ordinary mixed forest of dry slopes is composed of *Anogeissus latifolia*, *Ougeinia*, *Odina*, *Cleistanthus collinus*, *Zizyphus xylopyrus*, *Buchanania latifolia*, and species of *Terminalia* and *Bauhinia*. The *sāl* varies from

[1] *Memoirs, Geological Survey of India*, vol. xviii, pt. ii; and *Records, Geological Survey*, vol. iii, pt. iv, and vol. xxxi, pt. ii.

a scrubby bush to a tree 120 feet high, and is often associated with *Odina*, the *mahuā* (*Bassia latifolia*), *Diospyros*, *Symplocos racemosa*, the gum kino-tree (*Pterocarpus Marsupium*), *Eugenia Jambolana*, and especially *Wendlandia tinctoria*. Its common associates, *Careya arborea* and *Dillenia pentagyna*, are here confined to the valleys; but *Dillenia aurea*, a tree of the Eastern peninsula and sub-Himālayas, is curiously common in places. The flora of the valley includes *Garcinia Cowa*, *Litsaea nitida* (Assamese), *Amoora Rohituka*, *Saraca indica*, *Gnetum scandens*, *Musa sapientum* and *ornata*, *Lysimachia peduncularis* (Burmese), and others less interesting. The best represented woody orders are the *Leguminosae*, *Rubiaceae* (including six species of *Gardenia* and *Randia*), *Euphorbiaceae*, and *Urticaceae* (mostly figs). Of other orders, the grasses number between one and two hundred species, including the *sabai* grass (*Ischaemum angustifolium*) and spear-grass (*Andropogon contortus*), which are most abundant. The *Cyperaceae* number about 50 species, the *Compositae* 50, and the *Acanthaceae* about 11 under-shrubs and 25 herbs. The principal bamboo is *Dendrocalamus strictus*; and the other most useful indigenous plants are the *mahuā* (*Bassia latifolia*) and *Dioscorea* for food, *Bauhinia Vahlii* for various purposes, *āsan* (*Terminalia tomentosa*) for the rearing of silkworms, *Terminalia Chebula* for myrabolams, *kusum* (*Schleichera trijuga*) for lac and oil, and *sabai* grass.

Wild elephants, bison, tigers, leopards, bears, *sāmbar*, spotted deer, barking-deer, four-horned antelope, wild hog, hyenas, and wild dogs are found; but they are becoming scarce, owing to the hunting proclivities of the aborigines, and, with the exception of bears and some of the smaller animals, they are now almost entirely restricted to the 'reserved' forests. Poisonous snakes are numerous. Many men and cattle are killed by wild animals, and upwards of Rs. 700 is distributed annually in rewards for killing dangerous beasts.

During the hot months of April, May, and June westerly winds from Central India cause high temperature with very low humidity. The mean temperature increases from 81° in March to 90° in April and 93° in May; the mean maximum from 95° in March to 105° in May, and the mean minimum from 67° to 80°. During these months humidity is not so low in this District as elsewhere in Chotā Nāgpur, though it falls to 60 per cent. in March and 56 per cent. in April. In the cold season the mean temperature is 67° and the mean minimum 53°. The annual rainfall averages 53 inches, of which 9·2 inches fall in June, 13·4 in July, 12·4 in August, and 7·9 in September. The rainfall is heaviest in the west and south-west; but, owing to the mountainous character of the country, it varies much in different localities, and one part of the District may often have good rain when another is suffering from drought.

Thanks mainly to its isolated position, the District was never invaded by the Mughals or the Marāthās. The northern part was conquered successively by Bhuiyā and Rājput chiefs, but in the south the Hos or Larkā ('fighting') Kols successfully maintained their independence against all comers. The Singh family of Porāhāt, whose head was formerly known as the Rājā of Singhbhūm, are Rāthor Rājputs of the Solar race; and it is said that their ancestors were three brothers in the body-guard of Akbar's general, Mān Singh, who took the part of the Bhuiyās against the Hos and ended by conquering the country for themselves. At one time the Rājā of Singhbhūm owned also the country now included in the States of Saraikelā and Kharsāwān, and claimed an unacknowledged suzerainty over the Kolhān; but SARAIKELĀ and KHARSĀWĀN, with the dependent maintenance grants of Dugnī and Bānkshāhi, were assigned to junior members of the family, and in time the chief of Saraikelā became a dangerous rival of the head of the clan.

History.

British relations with the Rājā of Singhbhūm date from 1767, when he made overtures to the Resident at Midnapore asking for protection; but it was not until 1820 that he acknowledged himself a feudatory of the British Government, and agreed to pay a small tribute. He and the other chiefs of his family then pressed on the Political Agent, Major Roughsedge, their claims to supremacy in the Kolhān, asserting that the Hos were their rebellious subjects and urging on Government to force them to return to their allegiance. The Hos denied that they were subject to the chiefs, who were fain to admit that for more than fifty years they had been unable to exercise any control over them; they had made various attempts to subjugate them, but without success, and the Hos had retaliated fiercely, committing great ravages and depopulating entire villages. Major Roughsedge, however, yielding to the Rājās' representations, entered the Kolhān with the avowed object of compelling the Hos to submit to the Rājās who claimed their allegiance. He was allowed to advance unmolested into the heart of their territory, but while encamped at Chaibāsa an attack was made within sight of the camp by a body of Hos who killed one man and wounded several others. They then moved away towards the hills, but their retreat was cut off by Lieutenant Maitland, who dispersed them with great loss. The whole of the northern Hos then entered into engagements to pay tribute to the Rājā of Singhbhūm; but on leaving the country Major Roughsedge had to encounter the still fiercer Hos of the south, and after fighting every inch of his way out of Singhbhūm, he left them unsubdued. His departure was immediately followed by a war between the Hos who had submitted and those who had not, and a body of 100 Hindustāni Irregulars sent to the assistance of the former was driven out by the latter. In 1821

a large force was employed to reduce the Hos; and after a month's hostilities, the leaders surrendered and entered into agreements to pay tribute to the Singhbhūm chiefs, to keep the road open and safe, and to give up offenders; they also promised that 'if they were oppressed by any of the chiefs, they would not resort to arms, but would complain to the officer commanding the troops on the frontier, or to some other competent authority.'

After a year or two of peace, however, the Hos again became restive, and gradually extended the circle of their depredations. They joined the Nāgpur Kols or Mundās in the rebellion of 1831–2, and Sir Thomas Wilkinson, who was then appointed Agent to the Governor-General for the newly formed non-regulation province of the South-Western Frontier, at once recognized the necessity of a thorough subjugation of the Hos, and at the same time the impolicy and futility of forcing them to submit to the chiefs. He proposed an occupation of Singhbhūm by an adequate force, and suggested that, when the people were thoroughly subdued, they should be placed under the direct management of a British officer, to be stationed at Chaibāsa. These views were accepted; a force under Colonel Richards entered Singhbhūm in November, 1836, and within three months all the refractory headmen had submitted. Twenty-three Ho *pīrs* or *parganas* were then detached from the States of Porāhāt, Saraikelā, and Kharsāwān, and these, with four *pīrs* taken from Mayūrbhanj, were brought under direct management under the name of the Kolhān; and a Principal Assistant to the Governor-General's Agent was placed in charge of the new District, his title being changed to Deputy-Commissioner after the passing of Act XX of 1854. There was no further disturbance until 1857, when the Porāhāt Rājā, owing largely to an unfortunate misunderstanding, rose in rebellion, and a considerable section of the Hos supported him. A tedious and difficult campaign ensued, the rebels taking refuge in the mountains whenever they were driven from the plains; eventually, however, they surrendered (in 1859), and the capture of the Rājā put an end to the disturbances.

Since that year the Hos have given no trouble. Under the judicious management of a succession of British officers, these savages have been gradually tamed, softened, and civilized, rather than subjugated. The settlement of outsiders who might harass them is not allowed; the management of the estate is carried on through their own headmen; roads have been made; new sources of industrial wealth have been opened out, new crops requiring more careful cultivation introduced, new wants created and supplied; even a desire for education has been engendered, and educated Hos are to be found among the clerks of the Chaibāsa courts. The deposed Rājā of Porāhāt died in exile at Benares in 1890; and the estate, shorn of a number of villages which

were given to various persons who had assisted the British in the Mutiny, was restored in 1895 as a revenue-free estate to his son Kumār Narpat Singh, who has since received the title of Rājā. The present Porāhāt estate contains the rent-free tenures of Kerā and Anandpur and the rent-paying tenures of Bāndgaon and Chainpur.

Dhalbhūm, which has an area of 1,188 square miles, was originally settled with an ancestor of the present *zamīndār*, because he was the only person vigorous enough to keep in check the robbers and criminals who infested the estate. It was originally part of Midnapore; and when the District of the Jungle Mahāls was broken up by Regulation XIII of 1833, it was included, with the majority of the estates belonging to it, in the newly formed District of Mānbhūm. It was transferred to Singhbhūm in 1846, but in 1876 some 45 outlying villages were again made over to Midnapore.

There are no archaeological remains of special interest; but there still exist in the south and east of the Kolhān proper, in the shape of tanks and architectural remains, traces of a people more civilized than the Hos of the present day. The tanks are said to have been made by the Sārāks, who were Jains, and of whom better-known remains still exist in Mānbhūm District. A fine tank at Benīsāgar is surrounded by the ruins of what must have been a large town.

Population.

The enumerated population rose from 318,180 in 1872 to 453,775 in 1881, to 545,488 in 1891, and to 613,579 in 1901. The increase is due in part to the inaccuracy of the earlier censuses, but a great deal of it is real; the climate is healthy and the inhabitants are prolific, and the country has been developed by the opening of the Bengal-Nāgpur Railway. The recorded growth would have been much greater but for the large amount of emigration which takes place, especially from the Kolhān to the tea Districts of Assam and Jalpaigurī, as well as to the Orissa States. In 1901 the density was 158 persons per square mile, the Chaibāsa and Ghātsīla *thānas* having 191 and 190 respectively per square mile, while Manoharpur in the west, where there are extensive forest Reserves, had only 49. CHAIBĀSA, the head-quarters, is the only town; the remainder of the population live in 3,150 villages, of which 2,973 have less than 500 inhabitants. Females are 29 per 1,000 in excess of males, and the disproportion appears to be increasing. The Hos marry very late in life, owing to the excessive bride-price which is customary. The population is polyglot. Of every 100 persons, 38 speak Ho, 18 Bengali, and 16 Oriyā; Santālī and Mundārī are also widely spoken. Of the inhabitants, 336,088 persons (55 per cent.) are Animists, and 265,144 (43 per cent.) Hindus; one per cent. are Christians and nearly one per cent. Musalmāns.

The Hos (233,000) constitute 38 per cent. of the population, and with

their congeners the Bhumijs (47,000) and Mundās (25,000) account for nearly half of it. Santāls number 77,000 and Ahīrs 53,000, while the functional castes most strongly represented are Tāntis or weavers (24,000) and Kāmārs or blacksmiths (11,000). Bhuiyās number 15,000 and Gonds 6,000. Of the total, 77 per cent. are dependent on agriculture and 8 per cent. on industry.

The German Evangelical Lutheran Mission, the Society for the Propagation of the Gospel, and the Roman Catholic Mission are making considerable progress; their work is largely educational, but the number of Christians has more than doubled in the last twenty years. In 1901 it was 6,961, of whom 6,618 were native Christians.

Agriculture.

The country may be divided into three tracts: first the comparatively level plains, then hills alternating with open valleys, and lastly the steep forest-clad mountains. In the last the cultivation was formerly more or less nomadic, the clearances being abandoned after a single crop had been harvested from the virgin soil; but this wasteful system is discouraged, and extensive areas have been formed into forest Reserves. The plains are embanked for rice cultivation, while in the intermediate tract the valleys are carefully levelled and grow rice, and the uplands or *gorā* are roughly cultivated with millets, oilseeds, and occasionally rice. The best lands are those at the bottom of the valleys which are swampy, and either naturally or artificially irrigated. These are called *berā* lands and yield a rich crop of winter rice, occasionally followed by linseed, pulses, or barley. The higher embanked lands, known as *bādi*, grow early rice. The best uplands grow an annual crop, but inferior lands are fit for cultivation only once in four or five years.

In 1903–4 the cultivated area was estimated at 1,280 square miles; 932 square miles were cultivable waste, and 1,240 square miles were Government forests. Rice is the principal crop, occupying nearly three-quarters of the cultivated area; rather more than half of it is winter rice. Oilseeds, principally rape and mustard and *sarguja*, account for 8 per cent. and maize for 5 per cent. of the cultivated area, while 20 per cent. is covered by pulses, 2 per cent. by *maruā*, and one per cent. each by millets and cotton.

Cultivation is extending rapidly, especially near the railway, but the system of tillage is very primitive, and shows no sign of improvement. Very little advantage is taken of the Loans Acts.

Though pasturage is ample, the cattle are poor, and the Hos take no interest in improving the breed.

The ordinary method of irrigation is to throw an embankment across the line of drainage, thereby holding up the water, which is used for watering the crops at a lower level by means of artificial channels and percolation. In the Kolhān Government estate there are 1,000

reservoirs of this kind, a quarter of which have been constructed by Government; and it is estimated that in the District as a whole a tenth of the cultivated area is irrigated in this way.

Forests.

More than half the District is still more or less under forest. In the Kolhān 529 square miles and in Porāhāt 196 square miles have been 'reserved' under the Forest Act; the Reserves in the latter tract are managed by the Forest department for the proprietor's benefit. Besides this, 212 square miles of 'protected' forest exist in the Kolhān estate and similar forests in Porāhāt, though these have not yet been defined. The Dhalbhūm forests, which are also fairly extensive, are managed by the proprietor without the intervention of the Forest department. The principal tree is the *sāl*, which is very valuable owing to the hardness of its timber and the size of the beams which the larger specimens yield. The chief minor products are lac, beeswax, *chob* (rope of twisted bark), myrabolams, and *sabai* grass, which is used for paper manufacture and also, locally, as a fibre. The total receipts of the Forest department in 1903–4 were Rs. 84,000, and the expenditure was Rs. 57,000. The expenditure was swelled by the cost of working-plans and of the roads which are being constructed in order to facilitate the extraction of timber. More than a third of the income is derived from the sale of *sabai* grass.

Minerals.

The rocks of Singhbhūm contain a number of auriferous quartz veins, by the disintegration of which is produced alluvial gold, found in the beds of some of the streams. Of late years the District has been repeatedly examined by experts, but the proportion of gold in the numerous reefs examined and in the alluvium was found to be too low for profitable working. Copper ores exist in many places from the confines of Rānchī to those of Midnapore. The principal form is copper glance, which is often altered to red copper oxide, and this in turn to malachite and native copper. In ancient times these ores were extensively worked, but modern attempts to resume their extraction have hitherto proved unsuccessful. Iron ore is frequently found on the surface, usually on hill-slopes, and is worked in places. Limestone occurs in the form of the nodular accretions called *kankar*, and is used not only for local purposes but is also collected and burnt for export to places along the railway.

A little coarse cotton cloth is woven, and soapstone bowls and plates are made.

Trade and communications.

The chief exports are *sāl*, paddy and rice, pulses, oilseeds, stick-lac, iron, *tasar*-silk cocoons, hides and *sabai* grass; and the chief imports are salt, cotton yarn, piece-goods, tobacco, brass utensils, sugar, kerosene oil, coal and coke. Since the opening of the railway trade has considerably

increased, and large quantities of timber are now exported from the forests of the District and of the adjoining Native States.

The Bengal-Nāgpur Railway traverses the District from east to west, and is connected with the East Indian Railway by the Sini-Asansol branch. The roads from Chaibāsa to Chakradharpur and from Chakradharpur towards Rānchī, about 50 miles, are maintained from Provincial funds; about 437 miles of road are maintained by the road-cess committee, and 127 miles of village tracks from the funds of the Kolhān Government estate.

The District has never been very seriously affected by famine; there was, however, general distress in 1866, when relief was given, and in 1900 the pinch of scarcity was again felt. At all seasons, and especially in years of deficient crops, the aboriginal inhabitants rely greatly on the numerous edible fruits and roots to be found in the forests.

Administration.

There are no subdivisions. The District is administered by a Deputy-Commissioner, stationed at Chaibāsa, who is assisted by three Deputy-Magistrate-Collectors. A Deputy-Conservator of forests is also stationed at Chaibāsa.

The Judicial Commissioner of Chotā Nāgpur is District Judge for Singhbhūm. The Deputy-Commissioner has the powers of a Subordinate Judge, but the Sub-Judge of Mānbhūm exercises concurrent jurisdiction, and all contested cases are transferred to his file. A Deputy-Collector exercises the power of a Munsif, and a Munsif from Mānbhūm visits the District to dispose of civil work from Dhalbhūm, where alone the ordinary Code of Civil Procedure is in force. Criminal appeals from magistrates of the first class and sessions cases are heard by an Assistant Sessions Judge, whose head-quarters are at Bānkurā. The Deputy-Commissioner exercises powers under section 34 of the Criminal Procedure Code; in his political capacity he hears appeals from the orders of the chiefs of Saraikelā and Kharsāwān, and he is also an Additional Sessions Judge for those States. Singhbhūm is now the most criminal District in Chotā Nāgpur as regards the number of crimes committed. They are rarely of a heinous character, but thefts and cattle-stealing are very common.

Dhalbhūm was permanently settled in 1800 for Rs. 4,267 per annum, plus a police contribution of Rs. 498. Porāhāt is a revenue-free estate, but pays Rs. 2,100 as a police contribution. This estate, including its dependencies of Anandpur, Kerā, Bāndgaon, and Chainpur, has recently been surveyed and settled. The average rate of rent fixed at this settlement was about 8½ annas per acre; in some parts it exceeded a rupee, but the general rate was brought down by the low rents levied in the wilder parts of the estate. The Kolhān Government estate was first settled in 1837 at a rate of 8 annas for every plough, and the total

assessment amounted to Rs. 8,000. In 1853 this rate was doubled. In 1867 the estate was resettled after measurement for a term of thirty years; only embanked rice land was assessed, at a rate of 12 annas per acre, and the total land revenue demand was fixed at Rs. 65,000. The last settlement was made in 1898. Uplands were assessed, for the first time, at a nominal rate of 2 annas per acre, and outsiders were made to pay double rates; but in other respects no change was made in the rate of assessment. The extension of cultivation, however, had been so great that the gross land revenue demand was raised to Rs. 1,77,000, of which Rs. 49,000 is paid as commission to the *mundās* or village headmen and the *mānkis* or heads of groups of villages. The average area of land held by a ryot is 4¾ acres, and, including the uplands (*gorā*), the average assessment per cultivated acre is 8½ annas.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	68	70	1,42	1,41
Total revenue . .	95	1,53	2,89	2,98

Outside the municipality of CHAIBĀSA, local affairs are managed by the road-cess committee. This expends Rs. 18,000, mainly on roads; its income is derived from a Government grant of Rs. 10,000 and from cesses.

The District contains 5 police stations or *thānas* and 3 outposts. The force under the control of the District Superintendent consists of an inspector, 12 sub-inspectors, 15 head constables, and 155 constables. There is also a rural police of 1,323 men, of whom about half are regular *chaukīdārs* appointed under Bengal Act V of 1887, and the rest (all in Dhalbhūm) are *ghātwāls*, remunerated by service lands. In the Kolhān there is no regular police; but the *mānkis* and *mundās* exercise police authority and report to a special inspector, who himself investigates important cases. The District jail at Chaibāsa has accommodation for 230 prisoners.

Education is very backward, and in 1901 only 2·5 per cent. of the population (4·8 males and 0·3 females) could read and write. The number of pupils under instruction increased from about 8,500 in 1882–3 to 15,655 in 1892–3. The number declined to 13,469 in 1900–1; but it rose again in 1903–4, when 15,165 boys and 1,171 girls were at school, being respectively 33·4 and 2·5 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 440, including 15 secondary, 410 primary, and 15 special schools. The expenditure on education was Rs. 64,000, of which Rs. 38,000 was met from Provincial funds, Rs. 7,000 from

fees, and the remainder from endowments, subscriptions, and other sources.

In 1903 the District contained two dispensaries, of which one had accommodation for 14 in-patients; the cases of 3,600 out-patients and 154 in-patients were treated, and 179 operations were performed. The expenditure was Rs. 2,700, of which Rs. 700 was met from Government contributions, Rs. 1,400 from municipal funds, and Rs. 500 from subscriptions.

Vaccination is compulsory only within the Chaibāsa municipality. In the whole District the number of persons successfully vaccinated in 1903–4 was 19,000, or 31 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xvii (1877); J. A. Craven, *Final Report on the Settlement of the Kolhan Government Estate* (Calcutta, 1898); F. B. Bradley-Birt, *Chota Nāgpur* (1903).]

Singlā.—River of Assam, which rises in the Lushai Hills, and flowing northwards through the Karīmganj subdivision of Sylhet District falls into the Son lake 45 miles from its source. On emerging from this lake it is known as the Kachuyā, and joins the Kusiyārā, a branch of the Surmā, a little to the east of Karīmganj town. In the upper portion of its course it flows through jungle land, very sparsely peopled; but about 8 miles north of the Sylhet boundary it enters on an elevated tract, which has been planted with tea, and from there to its junction with the Kusiyārā its banks are fringed with villages and tea gardens. There is very little road traffic in Sylhet; and the Singlā is largely used as a trade route for tea, forest produce, rice, and other products of the country. During the rains boats of 4 tons burden can proceed as far as Dullabcharā, but even in the dry season traffic is carried on in light vessels, which are towed up-stream.

Singpho Hills.—A tract of hilly country lying to the south-east of Lakhimpur District, Assam, inhabited by the Singphos, or Kachins as they are called in Upper Burma. Their original home seems to have been near the sources of the Irrawaddy, but they have gradually moved southwards, crossing the Hukawng valley and the Pātkai range, and have entered the valley of the Brahmaputra. The Singphos first settled in Assam towards the end of the eighteenth century, their villages being located on the Buri Dihing and on the Tengapāni east of Sadiyā. By degrees they assumed a state of semi-independence, and offered some resistance to our troops when Upper Assam came under British rule. It was then found that their villages were full of Assamese slaves, and no less than 6,000 were released by Captain Neufville, the officer in command. The Singphos live in small villages, several of which usually own a quasi-allegiance to one chief. Their houses are raised on piles, and are often 100 feet in length by 20 broad, with an open balcony at the end where the women of the family sit and

work. They form a large element in the population of the Hukawng valley which lies to the south of the Pātkai range.

Singpur.—Estate in Khāndesh District, Bombay. *See* MEHWAS ESTATES.

Singu. —Northernmost township of Mandalay District, Upper Burma, lying between 22° 16′ and 22° 46′ N. and 95° 54′ and 96° 21′ E., with an area of 712 square miles, a large proportion of which is forest. The population was 36,986 in 1891, and 35,670 in 1901, distributed in 146 villages, the head-quarters being at Singu (population, 1,479), on the Irrawaddy, about 40 miles north of Mandalay. The township contains the well-known Sagyin alabaster quarries, and some of the fisheries along the Irrawaddy and its backwaters are very valuable. Only the south of the township is cultivable; the north is hilly and uninhabited. The area cultivated in 1903–4 was 50 square miles, and the land revenue and *thathameda* amounted to Rs. 1,24,000.

Sinhgarh ('lion's fort').—Hill fort in the Haveli *tāluka* of Poona District, Bombay, situated in 18° 22′ N. and 73° 45′ E., about 12 miles south-west of Poona city, on one of the highest points of the Sinhgarh-Bhuleshwar range, 4,322 feet above sea-level, and about 2,300 feet above the plain. Population (1901), 1,142. On the north and south Sinhgarh is a huge rugged mountain with a very steep ascent of nearly half a mile. From the slope rises a great wall of black rock more than 40 feet high, crowned by nearly ruined fortifications. The fort is approached by pathways and by two gates. The north-east or Poona gate is at the end of a winding ascent up a steep rocky spur; the Kalyān or Konkan gate to the south-west stands at the end of a less difficult ascent, guarded by three gateways, all strongly fortified and each commanding the other. The outer fortifications, which consist of a strong stone wall flanked with towers, enclose a nearly triangular space about 2 miles round. The north face of the fort is naturally strong; the south face, which was stormed by the British in 1818, is the weakest. The triangular plateau within the walls is resorted to as a health-resort by the European residents of Poona in the hot months of April and May, and has several bungalows. The fort was originally known as Kondhāna. In 1340 Muhammad bin Tughlak is recorded to have blockaded it. In 1486 it fell to the founder of the Ahmadnagar dynasty on his capture of Shivner. In 1637 Kondhāna was given up to Bijāpur. In 1647 Sivajī acquired the fort by means of a large bribe to its Muhammadan commandant, and changed its name to Sinhgarh. In 1662, on the approach of a Mughal army under Shaista Khān, Sivajī fled from Supa to Sinhgarh; and from Sinhgarh he made his celebrated surprise on Shaista Khān's residence in Poona. In 1665 a Mughal force blockaded Sinhgarh, and Sivajī submitted. In 1670 it was retaken by Tānājī Mālusre, this capture forming one of

the most daring exploits in Marāthā history. Between 1701 and 1703 Aurangzeb besieged Sinhgarh. After three and a half months' siege the fort was bought from the commandant, and its name changed to Bakhshindabaksh, or 'God's gift.' In 1706, as soon as the Mughal troops marched from Poona to Bijāpur, Shankrajī Nārāyan Sachiv, chief manager of the country round, retook Sinhgarh and other forts. Sinhgarh remained with the Marāthās till the war of 1818, when it was carried by storm by General Pritzler.

Sinjhoro.—Newly formed *tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 45′ and 26° 20′ N. and 68° 40′ and 69° 10′ E., with an area of 479 square miles. The population (1901) is about 37,230, and the *tāluka* contains 131 villages. Jhol is at present the head-quarters of the *tāluka*, but Sinjhoro will shortly take its place. The land revenue and cesses amounted in 1903–4 to 2¼ lakhs. The *tāluka* is irrigated by canals, notably the Jāmrao, and produces *bājra* and cotton.

Sinnar Tāluka.—*Tāluka* of Nāsik District, Bombay, lying between 19° 38′ and 19° 58′ N. and 73° 48′ and 74° 22′ E., with an area of 514 square miles. It contains one town, SINNAR (population, 7,230), the head-quarters; and 101 villages. The population in 1901 was 75,375, compared with 73,138 in 1891. The density, 147 persons per square mile, is slightly above the District average. The demand for land revenue in 1903–4 was 1·7 lakhs, and for cesses Rs. 12,000. Sinnar is a rather bare table-land, bounded on the south by a high range of hills which run into Ahmadnagar District. It contains soil of almost every variety. The water-supply, especially in the east and in the hilly parts to the south, is scanty. The climate is healthy. The annual rainfall averages 24 inches.

Sinnar Town.—Head-quarters of the *tāluka* of the same name in Nāsik District, Bombay, situated in 19° 50′ N. and 74° E., on the Nāsik and Poona road. Population (1901), 7,230. It has been a municipal town since 1860, with an average income during the decade ending 1901 of Rs. 7,000. In 1903–4 the income was Rs. 8,000. A large portion of the land around the town is irrigated, producing rich crops of sugar-cane, plantains, betel-leaf, and rice. Except 200 cotton and 50 silk looms, chiefly for weaving robes or *sārīs*, there is no trade or manufacture. Sinnar is said to have been founded about seven hundred years ago by a Gauli Rājā, whose son, Rao Govind, built the handsome temple of Gondeshwar or Govindeshwar outside the town, at a cost of 2 lakhs. It is the largest and best-preserved Hemādpanti temple in the Deccan. The town was at one time the head-quarters of the local government under the Mughal emperors. The earliest historical mention of Sinnar appears to be as Sindiner in a copperplate of 1069. Sinnar is almost invariably called

Sindar by the peasantry. On the north-west of the town is an interesting and exquisitely carved little temple of Aieshwara in Chālukyan style. The town contains a Subordinate Judge's court, an English school, and a dispensary.

Sinor.—Head-quarters of the *tāluka* of the same name in the Baroda *prānt*, Baroda State, situated in 21° 54′ N. and 73° 23′ E. Population (1901), 5,186. It possesses Munsif's and magistrate's courts, vernacular schools, local offices, four *dharmsālas*, and several temples. The municipality receives an annual grant from the State of Rs. 1,100. Sinor is delightfully situated on the Narbadā, and a noble flight of 100 stone steps leads from the houses to the water-side. The earthwork of a railway line from Miyāgām has been completed.

Siohārā.—Town in Bijnor District, United Provinces. *See* SEOHĀRĀ.

Siprā.—River of Central India, also called Kshiprā, or Avanti nadī, chiefly important for the sanctity attaching to it. The Siprā rises in Mālwā, its nominal source being on the Kokrī Bardī hill, 12 miles south-east of Indore near the small village of Ujeni (22° 31′ N. and 76° E.), which gains importance from its connexion with the sacred stream. The river flows in a general north-westerly direction, taking, however, a very sinuous course, so that the road from Mhow to Mehidpur crosses it three times within a distance of 26 miles. Most of its course lies over the broad rolling Mālwā downs, between low banks, which admit of its waters being used for irrigation, but between Mehidpur and Alot it is hemmed in by high rocky banks. After flowing 54 miles from its source, it winds past the sacred city of Ujjain, with its many *ghāts* and temples and the famous water palace of Kāliādeh, passing 30 miles farther north by the town of Mehidpur; and after a total course of 120 miles through the territories of Indore, Dewās, and Gwalior, it finally enters the Chambal near Kālu-Kherī village at 23° 53′ N. and 75° 31′ E. Every mile of the river is marked by sacred spots, the reputed haunts of Rishis, or the scenes of miraculous incidents, around which a whole epic of tale and legend has grown up. The river itself is said to have sprung from the blood of Vishnu, and, as in Abul Fazl's day, is still believed to flow with milk at certain periods. The bed is throughout formed of hard basaltic trap, affording for the most part but a shallow channel to the stream, which rises in the rains to a considerable height, often causing much damage to neighbouring villages. In the hot season it ceases to flow entirely, though deep pools exist here and there throughout the year. The only affluents of importance are the Khān, which, rising about 7 miles south of Indore and flowing through the Residency and city, finally joins the Siprā at Gotrā village; and the Gambhīr, a large stream which joins it at Murlā Mer, and is bridged by the Ujjain-

Nāgda line near Aslaoda and by the Rājputāna-Mālwā Railway near Fatehābād.

Sīprī.—Head-quarters of the Narwar district of Gwalior State, Central India, situated in 25° 26′ N. and 77° 39′ E., on a branch of the Gwalior Light Railway, 1,315 feet above sea-level. Population (1901), 5,592. In 1564 Akbar stopped here on his way from Māndu to hunt elephants, the whole of a large herd being captured. In the seventeenth century the place was granted in *jāgīr* to Amar Singh Kachwāha of Narwar. He threw in his lot with prince Khusrū and was dispossessed by Shāh Jahān. Later on, however, the Sīprī and Kolāras districts were restored to him, while his grandson Anūp Singh received Narwar. Sīprī was then held by the Narwar chief until 1804, when it was seized by Sindhia, who made it over to Jādo Sāhib Inglia. It passed to the British under the Treaty of Poona (1817), but was restored to Sindhia in 1818 and has since formed part of his dominions. Sīprī was occupied as a cantonment in 1835. On June 17, 1857, the troops, consisting of part of the 2nd Cavalry and 3rd Infantry, Gwalior Contingent, mutinied, and the Europeans were obliged to retire. The cantonment was abandoned in 1896. The only noteworthy buildings are a palace built by Sindhia in 1901 and the old barracks. Sīprī has increased in importance as a trade mart since the opening of the railway, and is a centre for the distribution of forest produce. It contains a State post office, a British post and telegraph office, various courts, a police station, a school, a hospital, a custom-house, and a *sarai*.

Sīra Tāluk.—Northern *tāluk* of Tumkūr District, Mysore, lying between 13° 29′ and 14° 6′ N. and 76° 41′ and 77° 3′ E., with an area of 599 square miles. The population in 1901 was 77,604, compared with 68,327 in 1891. The *tāluk* contains one town, Sīra (population, 4,059), the head-quarters; and 247 villages. The land revenue demand in 1903-4 was Rs. 1,45,000. The *tāluk* is lower than the rest of the District. From east to west it is traversed by a stream which flows into the Vedāvati or Hagari, and whose course is marked by coco-nut gardens. The north-east is fertile and well watered, while in other parts the soil is rocky and hard. Along the west is a good deal of jungle.

Sīra Town.—Head-quarters of the *tāluk* of the same name in Tumkūr District, Mysore, situated in 13° 44′ N. and 76° 54′ E., 33 miles by road from Tumkūr town. Population (1901), 4,059. It was founded by the chief of Ratnagiri, but before being completed was captured by the Sultān of Bijāpur in 1638, and formed part of the *jāgīr* of Shāhjī, father of Sivajī. In 1687 it came under the Mughals, and was made the capital of their Carnatic province south of the Tungabhadra. In 1757 it was taken by the Marāthās, but in 1761 was

captured by Haidar Alī. In 1766 his brother-in-law gave it up again to the Marāthās, from whom it was recaptured by Tipū Sultān in 1774. It attained its greatest prosperity under Dilāwar Khān, the Mughal governor from 1724 to 1756, when it is said to have contained 50,000 houses. The palace erected by him formed the model for Haidar's and Tipū's palaces at Bangalore and Seringapatam. The fine garden called the Khān Bāgh was kept up by Haidar, and may have suggested the Lāl Bāgh at Bangalore. Tipū forcibly deported 12,000 families from Sīra to populate his new town, Shahr Ganjam, on the island of Seringapatam. The fort (from which the Bangalore fort was evidently copied) is well built of stone, and still remains. This, with the Jāma Masjid of hewn stone (1696), and the tomb of Malik Rihān (1651), are the principal survivals of its former greatness. There is a large tank for irrigation to the north, and the soil around is favourable for the growth of coco-nuts, the dried kernels of which are the staple article of export. The population are largely Kurubas, who make blankets from wool imported from Dāvangere and other parts, and export them to Wālājāpet in the east and to Coorg and Mangalore in the west. Chintzes and sealing-wax used to be made, but have been superseded by articles of English manufacture. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 2,300. In 1903–4 they were Rs. 3,700 and Rs. 3,000.

Siraguppa.—Town in Bellary District, Madras. *See* SIRUGUPPA.

Sirājganj Subdivision.—Subdivision of Pābna District, Eastern Bengal and Assam, lying between 24° 1′ and 24° 45′ N. and 89° 15′ and 89° 53′ E., with an area of 957 square miles. The subdivision is low-lying, but except in the Raiganj *thāna* to the north the drainage is not impeded by the high banks of dead rivers. It thus receives the benefit of an annual deposit of silt from the Jamunā; and when the floods subside, the water flows off readily, and does not stagnate as it does farther east. The population in 1901 was 833,712, compared with 761,904 in 1891, showing an increase of 9·4 per cent. The subdivision contains one town, SIRĀJGANJ (population, 23,114), the head-quarters; and 2,062 villages. Unlike the rest of the District, it is healthy, and the population is rapidly increasing, the density in 1901 being 871 persons per square mile. The chief centres of trade are Sirājganj and BERA.

Sirājganj Town.—Head-quarters of the subdivision of the same name in Pābna District, Eastern Bengal and Assam, situated in 24° 27′ N. and 89° 45′ E., on the right bank of the Jamunā. Population (1901), 23,114, of whom 40 per cent. are Hindus and 59·5 per cent. Musalmāns, a small number of Jains and Christians forming the remainder. Sirājganj was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 21,000,

and the expenditure Rs. 19,000. In 1903–4 the income was Rs. 20,000, of which Rs. 11,000 was derived from a tax on persons (or property tax), and Rs. 4,000 from a conservancy rate; and the expenditure was Rs. 19,000. Sirājganj is the largest town in North Bengal and the most important centre of the jute trade in this area. The raw product is brought in from west Mymensingh, Bogra, and east Rangpur, as well as from other parts of Pābna, and is here pressed into bales, which are either railed from Goalundo or shipped by river steamer to Calcutta. A large number of European firms do business at Sirājganj, and 14 factories are established here. It also collects the agricultural produce of Pābna and the neighbouring Districts for export to Calcutta, and distributes the imports of salt, piece-goods, and other European wares. The town possesses the usual public buildings; the sub-jail has accommodation for 34 prisoners. Sirājganj has of late somewhat declined in importance owing to the damage done by the earthquake of 1897, and to a change in the course of the Brahmaputra, which is now 3 miles distant from the town. The jute-mills here, which were among the first to be established in Bengal, have also been closed since the earthquake. The population was thus rather less in 1901 than at the previous enumeration of 1891.

Sirālkoppa.—Town in the Shikārpur *tāluk* of Shimoga District, Mysore, situated in 14° 23′ N. and 75° 15′ E., 11 miles north-west of Shikārpur town. Population (1901), 2,270. It is a place of trade between the western parts of Shimoga and the Bombay and Madras Districts to the north and east. It is the principal dépôt for jaggery, which is largely prepared in the *tāluk* and exported by the merchants of Sirālkoppa in exchange for piece-goods, blankets, &c. The municipality formed in 1880 became a Union in 1904. The receipts and expenditure during the ten years ending 1901 averaged Rs. 2,000 and Rs. 1,700. In 1903–4 they were Rs. 2,000 and Rs. 7,000.

Sirampur.—Subdivision and town in Hooghly District, Bengal. *See* SERAMPORE.

Siranda.—Lake in the Miāni *niābat* of the Las Bela State in Baluchistān, lying between 25° 27′ and 25° 35′ N. and 66° 37′ and 66° 41′ E. It runs north and south, and when full is about 9 miles long by 2 miles broad. During the greater part of the year the average depth is 3 to 5 feet, but the south-west corner, called Kun, is deeper. On the occurrence of floods the level of the water is raised 10 or 12 feet. The water is brackish, the lake having been formed by the gradual recession of the sea. Thousands of water-fowl resort to the lake in the cold season, and it contains many small fish.

Sirasgaon.—Town in the Ellichpur *tāluk* of Amraotī District, Berār, situated in 21° 19′ N. and 77° 44′ E. Population (1901), 6,537. A small bazar is held here once a week.

Sirāthū.—North-western *tahsīl* of Allahābād District, United Provinces, conterminous with the *pargana* of Karā, lying south of the Ganges, between 25° 30′ and 25° 47′ N. and 81° 12′ and 81° 31′ E., with an area of 250 square miles. Population fell from 129,932 in 1891 to 129,204 in 1901. There are 251 villages and three towns, none of which contains a population of 5,000. The demand for land revenue in 1903–4 was Rs. 2,07,000, and for cesses Rs. 34,000. The density of population, 517 persons per square mile, is a little below the District average. An upland ridge runs parallel to the Ganges at a distance ranging up to a mile and a half, and the low alluvial land below it is very rich. South of the ridge, as far as the Sasur Khaderī, which runs through the centre of the *tahsīl*, the soil is of average quality, and well-irrigation is usual. To the south of the river well-irrigation is replaced by water from the numerous *jhīls*, and rice is cultivated. In 1903–4 the area under cultivation was 137 square miles, of which 49 were irrigated. Wells supply nearly two-thirds of the irrigated area, and tanks most of the remainder. The Fatehpur branch canal serves only a few acres.

Sirhind Canal.—A perennial canal in the Punjab, taking off from the Sutlej, and irrigating the high land between the Sutlej on the north-west and the Patiāla and Ghaggar streams on the south-east, and extending as far south as the borders of Rājputāna, Bahāwalpur, and the Bīkaner State. The canal was constructed by Government, in association with the Native States of Patiāla, Nābha, and Jīnd. The preliminary survey work was begun in 1867, and the canal was formally opened in 1882, though irrigation did not commence until 1883. The area commanded by the canal is 8,320 square miles, of which 4,027 are in British territory, and the remainder in the States of Patiāla, Nābha, Jīnd, Farīdkot, and Kalsia. The head-works are at the town of Rūpar, where the Sutlej issues from the Siwālik Hills into the plains. Here a weir 2,370 feet long crosses the river from bank to bank, having 12 arched undersluices each of 20 feet span. Extending up-stream on the east bank is the canal head regulator, with 13 arched openings of 21 feet span. About 500 feet farther up the river is the lock channel head, to admit of navigation between the river and canal. The crest of the weir is 7¼ feet higher than the canal bed, and along it extends a line of 586 falling shutters 6 feet high. When these are raised and the undersluices closed, the whole of the river supply is turned into the canal, and this is usually the case from early in October to the end of April. The main canal has for 39 miles a bed-width of 200 feet, with a depth of 11½ feet, and can carry 8,000 cubic feet per second, or more than four times the ordinary flow of the Thames at Teddington. At the 39th mile it divides into two large branches, the combined branch on the west and the Patiāla feeder on the east. The

former, which has a bed-width of 136 feet and a capacity of 5,200 cubic feet per second, soon divides again into two branches. The northern of these, the Abohar branch, runs parallel to the Sutlej through Ludhiāna and Ferozepore Districts, terminating after a course of 126 miles at the town of Govindgarh. The southern or Bhatinda branch runs through Ludhiāna District and Patiāla territory, with a length of 100 miles. The irrigation from these two branches is mainly in British territory, and the administration is entirely under the British Government, which retains all the revenue derived from them. They receive between them 64 per cent. of the supply of the main line. The Patiāla feeder, the eastern of the two large branches into which the main line bifurcates, runs to the town of Patiāla, having a bed-width of 75 feet, and a capacity of 3,000 cubic feet per second. On its way it gives off to the south the three Native State branches, the Kotla (94 miles long), the Ghaggar (54 miles), and the Choa (25 miles). These three branches irrigate almost exclusively State territory, and the distributaries and irrigation arrangements are under the States, who receive the whole of the canal revenue; but the Patiāla feeder and the branches are maintained by an officer of the Canal department as agent for the States, who distributes the water according to a fixed allotment, Patiāla taking 83 per cent., Nābha 9 per cent., and Jīnd 8 per cent.

The distributaries were constructed so as to penetrate the border of every irrigated village, and thus to save the people the expense of making long watercourses and the difficulty of taking them through the land of other villages. This system, though expensive to construct and maintain, has been repaid by the rapidity with which irrigation has spread over the country. As during the cold season the whole of the river supply is turned into the canal, it was necessary to provide a substitute on the canal for the river navigation thus closed. Accordingly the main line, the combined branch, and 48 miles of the Abohar branch were provided with locks at the falls; and from the 48th mile of the Abohar branch a special navigation canal to the Sutlej near Ferozepore, 47 miles long, was constructed with a branch 4 miles long to Ferozepore. The Patiāla feeder was also made navigable as far as Patiāla. There is, however, little navigation along the branches, though the main line from Rūpar to the North-Western Railway is much used, bringing down a considerable amount of timber from the hills. There are 25 flour-mills at different falls along the branches. The greater part of the main line and branches is bordered by rows of trees, and the strip of land reserved for spoil or borrow pits is generally covered with plantations. A telegraph line extends from the canal head down the main line, the two British branches, the Patiāla feeder, and part of the two longer Native State branches. Since 1896–7 the area irrigated has in only one year fallen below 1,560 square miles; the greatest area

irrigated was 2,142 square miles in 1899–1900, of which 1,452 were in British territory. The total cost of construction to the end of 1903–4 has been 388·7 lakhs, of which 247·7 lakhs was paid by the Government, and 141 lakhs by the three Phūlkiān States. Of the cost of the head-works and main line, the Government paid 64 per cent. and the Phūlkiān States contributed 36 per cent. The Government defrayed the whole cost of the British branches, and the Native States that of their branches. The charges for annual maintenance are divided in the same way.

The gross revenue on the British branches averages about 28 lakhs, and the net revenue 20 lakhs. On the Native States branches the gross revenue averages about 12·5 lakhs, and the net revenue about 7 lakhs. The return on the British capital outlay was as high as 10·8 per cent. in 1897–8, and averaged 8 per cent. during the six years ending 1902–3. On the Native States capital outlay the return for these six years averaged 5·3 per cent. This canal is now not only a successful commercial scheme paying a handsome profit, but its advantages in years of drought are incalculable. It saves from famine a large tract of country and also provides food for exportation. Since 1896–7 it has been steadily paying off the accumulated interest charges. The tract of country irrigated is now traversed in all directions by several different lines of railway, some of which would not have been required if no canal was in existence.

Sirhind Town (*Sahrind*).—Town in the Fatehgarh or Sirhind *tahsīl*, Amargarh *nizāmat*, Patiāla State, Punjab, situated in 30° 38′ N. and 76° 27′ E., on the North-Western Railway. A mono-rail tramway, opened in February, 1907, runs from the railway station to Basi, 5 miles distant. Population (1901), 5,415. The spelling Sirhind is modern and due to a fanciful derivation from *sir-Hind*, the 'head of India,' due to its strategic position. Sahrind is said to mean the 'lion forest,' but one tradition assigns its foundation to Sāhir Rao, a ruler of Lahore, 166th in descent from Krishna; and Firishta implies that it was the eastern limit of the kingdom of Jaipāl, the Brāhman king of Ohind, but it has been confused by historians with BHATINDA or Tabarhind. It became a fief of Delhi after the Muhammadan conquest. Refounded in the reign of Fīroz Shāh III at the behest of Saiyid Jalāl-ud-dīn of Bokhāra, the *pir* or spiritual guide of that king, it became in 1361 the capital of a new district, formed by dividing the old fief (*shikk*) of Samāna. Fīroz Shāh dug a canal from the Sutlej, and this is now said to be the channel which flows past the town. Sirhind continued to be an important stronghold of the Delhi empire. In 1415 Khizr Khān, the first Saiyid ruler of Delhi, nominated his son, the Malik-ush-Shark, Malik Mubārak, governor of Fīrozpur and Sirhind, with Malik Sadhū Nādira as his deputy. In 1416 the latter

was murdered by Tughān Rais and other Turks, but Zīrak Khān, the governor of Samāna, suppressed the revolt in the following year. In 1420 Khizr Khān defeated the insurgent Sārang Khān at Sirhind, then under the governorship of Malik Sultān Shāh Lodī; and it was here that Malik Bahlol Lodī assumed the title of Sultān in 1451. Under the Mughal sovereigns Sirhind was one of the most flourishing towns of the empire, and is said to have contained 360 mosques, tombs, *sarais*, and wells. Its ruins commence about a mile from the railway station, and extend for several miles. In 1704 Bāzīd Khān, governor of Sirhind, bricked up alive in the town Fateh Singh and Zorāwar Singh, sons of Gurū Gobind Singh, whence the place is to this day held accursed by the Sikhs. In 1708 Banda Bairāgi sacked Sirhind and killed Bāzīd Khān. Ahmad Shāh Durrāni appointed Zain Khān *Sūbahdār* of Sirhind in 1761; but in December, 1763, the Sikhs attacked the place and killed Zain Khān at Manhera, a village close by, and the adjacent country fell into the hands of Rājā Ala Singh. The oldest buildings are two fine double-domed tombs, traditionally known as those of the Master and the Disciple, belonging probably to the fourteenth century. The tomb of Bahlol Lodī's daughter, who died in 1497, also exists. Shāh Zamān of Kābul was buried in a graveyard of great sanctity near the town. The town contains an Anglo-vernacular middle school and a police post.

Sirmūr (or Nāhan).—Hill State in the Punjab, under the political control of the Commissioner of the Delhi Division, lying amid the Himālayas, between 30° 20′ and 31° 5′ N. and 77° 5′ and 77° 55′ E., on the west bank of the Jumna and south of Simla. It has an area of 1,198 square miles; and its greatest length from east to west is 50 miles, and its extreme width from north to south 43 miles. It is bounded on the north by the Jubbal and Balsan States; on the east by the Dehra Dūn District of the United Provinces; on the south by Ambāla District and the Kalsia State of the Punjab; and on the west by territory of the Patiāla State and Keonthal.

Physical aspects.

With the exception of the Kiārda Dūn or valley which forms its south-eastern part, the whole State is hilly. Its southern border runs along the crest of the Outer Siwāliks. Parallel with these lies the Dhārthi range; and the intervening valley is traversed by the Mārkanda river which flows west, and by the Bāta which flows east. North-east of the Dhārthi range lies the valley of the Jalāl, a tributary of the Giri, which traverses the State in a winding course from north-west to south-east, dividing it into two natural divisions, the cis-Giri on the south-west and the trans-Giri on the north-east. In the centre of the northern border rises the CHAUR peak (11,982 feet), from which radiate several spurs, those on the west and south filling the whole trans-Giri tract

with their outliers. These extend far to the south-east, rising to 8,800 feet at Haripur, 8,233 feet at Gurwāna, and 6,691 feet at Guma. On the north-east the Tons, a tributary of the Jumna, forms the boundary, separating Sirmūr from Dehra Dūn. Thus, the slope of the country is from north to south, the confluence of the Giri with the Jumna being only 1,500 feet above sea-level; and the whole, with hardly an exception, drains into the latter river.

The greater part of the State lies on rocks of Tertiary age, with beds belonging to the Carbonaceous system (Krol and Blaini groups) on the north and north-east. The Lower Tertiary rocks are particularly well developed; and the Sirmūr series, which includes the Sabāthu, Dagshai, and Kasauli groups, takes its name from the State. The Upper Tertiary, or Siwālik series, is largely developed in the neighbourhood of Nāhan, where the lower beds consist of a great mass of sandstones, the Nāhan group; these are overlain by sandstones and conglomerates (Middle and Upper Siwālik) containing a rich mammalian fauna of pliocene age[1].

The lower valleys of the Jumna, Tons, and Giri have a true Siwālik flora, corresponding to that of the Dūns and *tarai* east of the Jumna. The Chaur mountain has a remarkably alpine vegetation at the higher levels—more so, for example, than the ranges intervening between it and the main ridge of the Inner Himālaya in Bashahr.

Tigers are occasionally, and elephants rarely, met with in the Dūn. Bears abound in the hills, and *sāmbar*, *chītal*, hog deer, and musk deer are plentiful, but wild dogs have much diminished the game in the Dūn and low hills. The fishing in the Giri is famous.

The climate in the Dūn is malarious in the rainy season and autumn, but otherwise the country is healthy and the hills enjoy a temperate climate. In the trans-Giri tract snow falls every winter, but it is rarely seen elsewhere. After December it is highly beneficial to the crops. The annual rainfall varies from 59 inches at Paonta to 65 inches at Pachhād, but generally more rain falls trans-Giri than in the west and south.

History.

The early history of Sirmūr is almost a blank. Tradition says that its ancient capital was Sirmūr, now a mere hamlet surrounded by extensive ruins, in the Kiārda Dūn, whose king was of Sūrajbansi or Solar race. Once, the legend runs, a woman boasted to the Rājā of her acrobatic skill, and he challenged her to cross and recross the Giri river on a rope, promising her half his kingdom if she succeeded. The woman crossed in safety; but as she was returning, a courtier, to save the kingdom from dismemberment, cut the rope, and the woman perished in the stream. For this act of treachery a flood swept away Sirmūr, and the Rājā perished with

[1] Medlicott, 'Geological Structure of the Southern Portions of the Himālayas,' &c., *Memoirs, Geological Survey of India*, vol. iii, pt. ii.

all his kin, leaving the realm without a ruler. But by chance a prince of Jaisalmer shortly after visited Hardwār as a pilgrim, and was there invited by one of the minstrels of the kingdom to assume its sovereignty. He accordingly sent a force under his son, the Rāwal or prince Sobha, who put down the disorders which had arisen in the State, and became the first Rājā of Sirmūr, under the title of Subhans Parkāsh, a title which the Rājās have ever since retained. Rājban became the capital of the new king in 1095. The eighth Rājā conquered Ratesh, now a part of the Keonthal State, about 1150; and his successor subdued Jubbal, Balsan, Kumhārsain, Ghond, Kot, and Theog, thus extending his dominions almost to the Sutlej. For many years these territories remained feudatories of the State; but its capital was at Kālsi, in Dehra Dūn, and the Rājās' hold over their northern fiefs appears to have been weak until in the fourteenth century Bīr Parkāsh fortified Hāth-Koti, on the confines of Jubbal, Rāwain, and Sahri, the last of which became the capital of the State for a time. Eventually in 1621 Karm Parkāsh founded Nāhan, the modern capital. His successor, Māndhāta, was called upon to aid Khalīl-ullah, the general of the emperor Shāh Jahān, in his invasion of Garhwāl, and his successor, Sobhāg Parkāsh, received a grant of Kotāha in reward for this service. Under Aurangzeb this Rājā again joined in operations against Garhwāl. His administration was marked by a great development of the agricultural resources of the State, and the tract of Kolagarh was also entrusted to him by the emperor. Budh Parkāsh, the next ruler, recovered Pinjaur for Aurangzeb's foster-brother. Rājā Mit Parkāsh gave an asylum to the Sikh Gurū, Gobind Singh, permitting him to fortify Paonta in the Kiārda Dūn; and it was at Bhangāni in the Dūn that the Gurū defeated the Rājās of Kahlūr and Garhwāl in 1688. But in 1750 Kīrat Parkāsh, after defeating the Rājā of Garhwāl, captured Naraingarh, Morni, Pinjaur, and other territories from the Sikhs, and concluded an alliance with Amar Singh, Rājā of Patiāla, whom he aided in suppressing his rebellious Wazīr; and he also fought in alliance with the Rājā of Kahlūr when Ghulām Kādir Khān, Rohilla, invaded that State. He supported the Rājā of Garhwāl in his resistance to the Gurkha invasion, and, though deserted by his ally, was able to compel the Gurkhas to agree to the Ganges as the boundary of their dominions. His son, Dharm Parkāsh, repulsed the encroachments of the chief of Nālāgarh and an invasion by the Rājā of Garhwāl, only to fall fighting in single combat with Rājā Sansār Chand of Kāngra, who had invaded Kahlūr, in 1793. He was succeeded by his brother, Karm Parkāsh, a weak ruler, whose misconduct caused a serious revolt. To suppress this he rashly invoked the aid of the Gurkhas, who promptly seized their opportunity and invaded Sirmūr, expelled Ratn Parkāsh, whom the rebels had placed

on the throne, and then refused to restore Karm Parkāsh. Fortunately his queen, a princess of Goler and a lady of courage and resource, took matters into her own hands and invoked British aid. Her appeal coincided with the declaration of war against Nepāl, and a force was sent to expel the Gurkhas from Sirmūr. On the conclusion of the Gurkha War the British Government placed Fateh Parkāsh, the minor son of Karm Parkāsh, on the throne, annexing all the territories east of the Jumna with Kotāha and the Kiārda Dūn. The Dūn was, however, restored to the State in 1833 on payment of Rs. 50,000. During the first Afghān War the Rājā aided Government with a loan, and in the first Sikh War a Sirmūr contingent fought at Hari-kā-pattan. Under Rājā Sir Shamsher Parkāsh, G.C.S.I. (1856–98), the State progressed rapidly. *Begār* (forced labour) was abolished, roads were made, revenue and forest settlements carried out, a foundry, dispensaries, post and telegraph offices established. In 1857 the Rājā rendered valuable services, and in 1880 during the second Afghān War he sent a contingent to the north-west frontier. The Sirmūr Sappers and Miners under his second son, Major Bīr Bikram Singh, C.I.E., accompanied the Tīrāh expedition in 1897. The present Rājā (Sir Surindar Bikram Parkāsh, K.C.S.I.) has remodelled the courts of the State. He has been a Member of the Legislative Council of the Governor-General. The Rājā of Sirmūr is entitled to a salute of 11 guns.

Population.

The only town is NĀHAN, the capital. There are 973 villages, or groups of hamlets, and the population of the State at the three enumerations was: (1881) 112,371, (1891) 124,134, and (1901) 135,626. It rose by 9·3 per cent. during the last decade, the rate of increase being greatest in the Paonta *tahsīl*. Anciently divided into *bhojs*, which were grouped into twelve *wazīrīs*, it is now divided into four *tahsīls*: Nāhan, Rainka, Paonta, and Pachhād. More than 95 per cent. of the people are Hindus. By far the most numerous caste is that of the agricultural Kanets, who form more than 30 per cent. of the total. Western Pahārī is the language of 78 per cent. of the population.

In 1895 the American Presbyterian Mission of Ludhiāna sent evangelists to commence mission work in the State, ordained missionaries being also posted to Nāhan from time to time. In 1902 mission work was, with the Rājā's assent, made over to the Scandinavian Alliance Mission Society, which now has two missionaries posted at Nāhan. The only Christians in the State are immigrants.

Agriculture.

The Kiārda Dūn differs greatly from the rest of the State in its agricultural conditions. Formerly a wilderness of swamp and forest, constituting a bulwark against aggression from the plains, it was colonized by the late Rājā with cultivators from the submontane districts, and is now one of the richest

tracts in the State. It is a fertile alluvial plain, naturally well watered by numerous streams, and receiving a regular and sufficient rainfall. Its principal products are wheat and gram in the spring, and rice, maize, sugar-cane, ginger, and turmeric in the autumn. The hill tracts generally are less rich agriculturally, though poppy, ginger, tobacco, and turmeric are grown extensively. The forest products are also a source of considerable wealth to the people. The prevalent form of tenure may be described as *ryotwāri*, village communities like those of the plains being unknown, but the ancient *bhoj* still exists in name. The area for which particulars are on record is 1,108 square miles, of which 388 square miles, or 35 per cent., are forest, 10 per cent. are not available for cultivation, 42 per cent. are cultivable waste other than fallows, and 4 per cent. are current fallows. The net area cropped in 1904 was 130 square miles. The staple food-grains of the State are wheat, rice, gram, maize, *chulai*, and *manduā*. The State is absolutely secure against famine.

As already noted, the main feature in the agricultural development has been the colonization of the Kiārda Dūn in the Paonta *tahsīl*, the cultivated area of which rose from 11,253 acres in 1878 to 27,505 acres in 1904. Sugar-cane cultivation was introduced into the Dūn by the late Rājā, and he also established the well-known Nāhan iron foundry.

The cattle, as elsewhere in the hills, are small but hardy. The trans-Giri cows are by far the best. Buffaloes have been imported of recent years, but are only kept by the well-to-do and by the Gūjar immigrants from Jammu, who form a separate community and often own large herds. Goats are kept both for food and their hair, which is exported, and sheep for the sake of their wool and for sale, those of the *khādu* kind being the best and fetching high prices. Ponies are bred only in the Dūn, and the State keeps a pony and a donkey stallion at Paonta.

The State contains no irrigation wells or canals, but a scheme for taking a small canal out of the Giri river to irrigate the Dūn is in contemplation. Springs and torrents, however, afford ample means of irrigation, especially in the Rainka and Pachhād *tahsīls*, in which over one-third of the area is irrigated. The streams are diverted into *kūhls* or watercourses.

Forests.

The State forests are valuable. Along the western face of the Chaur range runs a compact belt of forest 20 miles long by 1 to 5 wide, mostly of oak, but also stocked in parts with fir, spruce, birch, and yew. *Deodār* occurs pure in 12 blocks, and occasionally blue pine. Below this belt oak and pine (*P. longifolia*) occur in places. Another narrow belt of oak, 23 miles long, covers the slopes of the Chandpur, Mārolāni, and Haripur ranges

below 7,000 feet. The ridges between the Giri river and the Dhārthi range are covered with scrub jungle, interspersed with pine, and, on the lower slopes, are sub-tropical in character. The lower hills, including the Kiārda Dūn and the northern face of the Outer Siwāliks, have an area of 176 square miles, of which 104 square miles are stocked with *sāl*, pure or mixed, 67 with tropical species, and 3 with pine. The Forest department is controlled by a Conservator, under whom is a considerable staff of officials, mostly trained foresters. The State is divided into two forest divisions, the Rājgarh or upper and the Nāhan or lower, each with five ranges. In the former division the forests are classed as protected, in the latter as 'reserved,' many of those in the Dūn being absolutely closed. Nearly all have been demarcated. The forest revenue in 1904 was Rs. 80,000.

Iron is found in several places, but none of the mines is worked, and iron for the foundry is imported. Lead, copper, alum, and ochre are also known to exist, but only the last is mined at two places. Gold is found in minute quantities in the Rūn, Bātā, and other streams. Slate quarries are worked in the Pachhād and Rainka *tahsīls*.

Trade and communications.

The only important industry is the foundry at Nāhan, which belongs to the State. Started in 1867, magnetic iron, obtained from the Chheta mine in the Rainka *tahsīl*, was at first smelted; but the wrought iron produced could not compete with English mild steel, and the foundry was accordingly utilized for the manufacture of sugar-cane crushing mills, which found a ready market throughout the Punjab and United Provinces. The foundry employs 600 men, and its capacity is 75 tons per week. Much modern machinery has been erected. Persian carpets, floorcloths, and mats are made in the State jail. The only other industries are the making of wooden vessels, churns, blankets, &c., in the hills, and of coarse cotton cloth. Some cane furniture is also made.

There is a considerable export of agricultural and forest produce. Wheat, maize, and gram are sent from the Kiārda Dūn to Dehra Dūn and Ambāla, the hill produce going mostly to Simla and the neighbouring cantonments. Timber is also exported via the Jumna. Cloth, utensils, sugar, salt, drugs, and articles of European and Indian manufacture are imported. In bad years the Nāhan *tahsīl* has to import grain from the plains.

A good road leads from Barāra on the North-Western Railway to Nāhan, the capital of the State, which is also connected with the Rāmpur ferry on the Jumna by a good road. There are 82 miles of cart-roads in the State and, for a hilly country, communications are good.

The administration is closely modelled on that of the Punjab, the

Rājā personally exercising administrative control over the departments, divided into administrative, judicial, military, police, accounts, public works, medical, forests (including tea and other estates), jail, and foundry. Most of the principles of British law are observed, and almost all the Indian Acts applicable to the Punjab have been adopted.

Administration.

The State is divided into four *tahsīls*. These are Nāhan, comprising the old Dhārthi and Khol *wazīris*; Pachhād, the 'western' tract, in which is the Sain range; Rainka, comprising the hilly country to the east; and Paonga, which contains the Kiārda Dūn. Each *tahsīl* is under a *tahsīldār*.

The highest court is that of the Council, which consists of the Rājā as president, and five members nominated by him. The court of the Rājā sitting alone is known as the *Ijlās-i-Khās*. This exercises full jurisdiction in civil and criminal cases, and appeals from it lie to the Council, but sentences of death require the confirmation of the Commissioner of Delhi. Below it are the courts of the district judge and district magistrate. Subordinate to the former are the Munsif at Nāhan (exercising second-class criminal powers) and the *tahsīldārs*, who try petty cases up to Rs. 15 in value. The district magistrate is collector and registrar, and the *tahsīldārs* are subordinate to him in all but their civil judicial functions. There is also an honorary magistrate. Serious offences are rare. Cattle-lifting occurs in the tracts bordering on British territory, and matrimonial offences are common.

The Imperial Service corps of Sirmūr Sappers and Miners, 197 strong, raised in 1889, served with distinction under Major Bīr Bikram Singh, C.I.E., in the Tīrāh expedition, 1897. It was also employed in constructing the Khushālgarh-Kohāt-Thal Railway in 1901–2. The State maintains cavalry (31 strong) and a regiment of infantry (235 strong), and possesses two serviceable guns.

Prior to 1813 the revenue was levied in both cash and kind. The area was not measured, but the amount of land which could be sown with a given quantity of seed formed a unit, and each unit paid a rupee in cash or two maunds (local weight) of grain. During the rule of Rājā Fateh Parkāsh, a cash assessment was imposed on all but the fertile *khol* tracts of Harīpur and Nāhan, which continued to pay in kind. The State share was deemed to be a sixth of the gross produce, with an additional cess on each unit. In 1845 the levy of revenue in kind was discontinued in these two tracts. Under Rājā Sir Shamsher Parkāsh the State was regularly surveyed and settled in 1878, in spite of some opposition in the Rainka *tahsīl*, where the people feared that the iron measuring chains would destroy the fertility of the soil. In 1887 a second regular settlement was effected, but the whole area was

not resurveyed. It resulted in an enhancement of 50 per cent. in the revenue, due to increased irrigation, the rise in prices, and the colonization of the Dūn.

The gross revenue of the State is about Rs. 6,00,000, mainly derived from land revenue, forests, and tea estates. It receives Rs. 13,734 a year from Government as compensation for the abolition of transit dues.

The district board consists of 21 members, of whom 7 are nominated and 14 elected. It had in 1904 an income of Rs. 45,000, mainly derived from a local rate. The town of Nāhan is administered by a municipal committee, consisting of 9 members, 6 elected and 3 nominated, and a paid president. It had an income of Rs. 15,247 in 1903, chiefly derived from octroi.

The police, who number 129, are under an assistant district superintendent directly responsible to the Rājā. The State contains 4 police stations, with 4 outposts. The jail at Nāhan has accommodation for 100 prisoners.

Sirmūr stands twenty-third among the Districts and States of the Punjab in regard to the literacy of its population, of whom 4·3 per cent. (6·1 males and 0·3 females) could read and write in 1901. Secondary education is confined to Nāhan town. The number of pupils under instruction was 280 in 1890–1, 284 in 1900–1, and 381 in 1903–4. In the last year there were one secondary and 4 primary public schools, and 5 elementary private schools, with 35 girl teachers in the public schools.

The State possesses two hospitals at Nāhan, and six dispensaries, besides the jail and military dispensaries. These contain accommodation for 76 in-patients. In 1903–4 the number of cases treated was 49,008, of whom 754 were in-patients, and 374 operations were performed. The expenditure was Rs. 22,823, the greater part of which was met from State funds. Vaccination in Sirmūr is performed by Government vaccinators and by State officials in Nāhan town.

[*State Gazetteer* (in the press).]

Sirohi State.—State situated in the south-west of Rājputāna, lying between 24° 20′ and 25° 17′ N. and 72° 16′ and 73° 10′ E., with an area of 1,964 square miles. It is bounded on the north, north-east, and west by Jodhpur; on the south by Pālanpur, Dānta, and Idar; and on the east by Udaipur. The country is much broken up by hills and rocky ranges. The main feature is Mount Abu, the highest peak of which, Guru Sikhar, rises 5,650 feet above sea-level; it is situated in the south of the State, and is separated by a narrow pass from an adjacent range of lower hills, which run in a north-easterly direction almost as far as the cantonment of Erinpura, and divide the territory

Physical aspects.

into two nearly equal portions. The western half is comparatively open and level, and more populous and better cultivated than the other. Both portions, being situated at the foot of this central range of hills, are intersected by numerous watercourses, which become torrents of greater or less volume in the rainy season, but are dry during the remainder of the year. The ARĀVALLI HILLS form a wall on the east, but, with the exception of the Belkar peak (3,599 feet above the sea), only the lower skirts and outlying spurs of this range are included within Sirohi limits. The only river of any importance is the Western Banās, which, rising in the hills not far from the town of Sirohi, flows first in a south-easterly and next in a south-westerly direction till it enters Pālanpur territory a little beyond the village of Māwal; it is eventually lost in the sand at the head of the Rann of Cutch. Within Sirohi limits this river is not perennial, and usually ceases to flow about the middle of the cold season, leaving pools of water here and there. In addition, several streams contain water for many months, such as the Jawai and the Sukri, which flow west into the Lūni, and the Sukli, a tributary of the Western Banās.

The whole of Sirohi is occupied by schists or gneisses belonging to the Arāvalli system, traversed by dikes of granite. Mount Abu is formed of a highly felspathic massive gneiss with a few schistose beds. Traces of gold were found in some ferruginous bands of quartzose schist near the Rohera railway station in 1897; and the remains of old workings, which do not appear to have been more than prospecting trenches, are to be seen in the neighbourhood.

The fauna is very varied. The last lion was shot on the western slopes of Abu in 1872, but tigers and black bears are still found on the Abu-Sirohi range and in the Nandwāna hills in the west, though they appear to be becoming scarcer every year. In the same localities *sāmbar* (*Cervus unicolor*) are fairly numerous, while jungle and spur-fowl abound. *Chītal* (*Cervus axis*) are met with in the south-east, and antelope and the Indian gazelle throughout the plains, besides the usual small game.

The climate is on the whole dry and healthy, and there is a general freedom from epidemic diseases, in both the hills and plains. The heat in the plains is never so intense as in the north of Rājputāna, but, on the other hand, the cold season is of much shorter duration and less bracing. The climate of Abu is very agreeable and healthy for the greater portion of the year. The southern and eastern districts usually receive a fair amount of rain, but over the rest of the State the fall is frequently scant. This is chiefly due to the influence of the Abu and Arāvalli Hills on the clouds driven inland by the south-west monsoon; thus at Abu the annual rainfall averages between 57 and 58 inches (of which nearly 5 are received in June, 21 in July, over 18 in August,

and 10 in September), while at Sirohi, 23 miles to the north, it is about 21 inches, and at Erinpura, about the same distance still farther north, it is barely 19 inches. On Abu the rainfall has varied from more than 130 inches in 1893 to less than 11½ inches in 1899, while in the plains over 42 inches were registered at Sirohi in 1893 and only 5½ inches in 1901. Earthquakes are not uncommon on Abu, but as a rule the shocks are very slight. The people tell of a somewhat severe earthquake in 1848, which damaged some of the houses and cracked one or two of the arches of the Delwāra temples; and a succession of severe shocks is reported to have occurred on October 9, 1875.

History.

The chiefs of Sirohi are Deora Rājputs, a branch of the famous Chauhān clan which furnished the last Hindu king of Delhi, Prithwī Rāj. They claim descent from Lachhman Rāj, who is said to have ruled at NĀDOL, in the Jodhpur State, towards the end of the tenth century. Driven thence about 200 years later, a date which corresponds approximately with the conquest of Nādol by Kutb-ud-dīn, the Chauhāns migrated to the west and established themselves at Bhīnmāl and Sānchor, both now in Jodhpur territory, and subsequently took the fort of JĀLOR from the Paramāra Rājputs. Shortly afterwards their chief was one Deorāj, and from him the sept is called Deora Chauhān. At this time the territory now known as Sirohi was held by the Paramāras, who had their capital at Chandrāvati. Constant fighting went on between the Deoras and the Paramāras, and, on Chandrāvati being taken, the latter took refuge on Mount Abu. This place was too strong to be attacked with success, so the Deoras resorted to stratagem. They sent a proposal that the Paramāras should bring twelve of their daughters to be married into the Chauhān tribe and thus establish a friendship. The proposal being accepted, the story runs that the girls were accompanied to Vareli, a village north-west of Abu, by nearly all the Paramāras. The Deoras then fell upon them, massacred the majority, and, pursuing the survivors back to Abu, gained possession of that place. This is said to have occurred about the beginning of the fourteenth century. Rao Sobha founded the old town of Sirohi in 1405; but as the site was unhealthy, his son, Sains Mal, abandoned it and built the present capital, a short distance to the west, in 1425. Shortly afterwards Rānā Kūmbha of Mewār is said to have taken refuge on Abu from the army of the Muhammadan king of Gujarāt. When that army retired, the Rānā refused to leave such a place of vantage, and had to be expelled by force. During the next two centuries very little of importance is recorded. Rao Surthān, a contemporary of the emperors Akbar and Jahāngīr, is described as a valiant and reckless chief 'who, in his pride, shot his arrows at the sun for daring to shine upon him'; though repeatedly defeated by the imperial army, he refused to acknowledge

the supremacy of the Mughals. Throughout the eighteenth century Sirohi suffered much from wars with Jodhpur, and the constant depredations of the wild Mīnā tribes. Rao Udaibhān, who succeeded to the chiefship in 1808, was returning from performing his father's funeral obsequies on the banks of the Ganges, when he was seized by Mahārājā Mān Singh of Jodhpur and forced to pay a ransom of 5 lakhs. To liquidate this sum, Udaibhān levied collections from his subjects, and so oppressed them that in 1816 he was deposed and imprisoned by a convocation of the nobles and people of the State, and his brother Sheo Singh was selected to succeed him. The condition of Sirohi was now critical. Many of the Thākurs had thrown off their allegiance and placed themselves under the protection of Pālanpur, and the State was nigh being dismembered. The Jodhpur chief sent a force to liberate Udaibhān, but the expedition failed, and in 1817 Sheo Singh sought the protection of the British Government. The Jodhpur State claimed suzerainty over Sirohi, but after a careful inquiry this was disallowed, and a treaty was concluded on September 11, 1823. In the fifth article the territory was described as having 'become a perfect desert in consequence of intestine divisions, the disorderly conduct of the evil-disposed portion of its inhabitants, and the incursions of predatory tribes.' A Political Agent was appointed, and the new régime had very beneficial results. The Mīnās and other predatory bands were put down, the Thākurs in a great measure reduced to submission, and a system of government was introduced. These objects having been attained, the Political Agent was withdrawn in 1832. Sheo Singh's position under the treaty was that of regent only, but on Udaibhān's death in 1847 he was acknowledged as chief. He did good service in the Mutiny of 1857; and the tribute, which had been fixed at Rs. 15,000 in the local coinage, was reduced by one-half. In 1868 the tribute was converted to Rs. 6,881-4-0 British currency. Sheo Singh died in 1862, and was succeeded by his son, Umed Singh. The principal events of his time were the famine of 1868-9, the outlawry of the Thākur of Bhatāna, and the predatory incursions of Bhīls from the Mārwār border. In 1870 the political charge of the State was transferred from an Assistant to the Governor-General's Agent to the Commandant of the Erinpura Irregular Force; and the latter, being vested with special powers, speedily brought the Bhīls to order and put down plundering with a strong hand. Umed Singh died in 1875 and was succeeded by his only son, Kesri Singh, the present chief, who was invested with full powers in the same year. In 1889 he received the title of Mahārao as a hereditary distinction, and has also been created a G.C.I.E. and a K.C.S.I. During his rule much has been done to improve the condition of the State. Crime is less frequent, and the relations between the Darbār and the Thākurs are

more cordial; the revenue has doubled, but progress has been much retarded by the recent famines and scarcities. The chief of Sirohi is entitled to a salute of 15 guns.

The places of archaeological interest in the State are Abu; the ruins of the ancient town of Chandrāvati (south-west of Abu Road on the bank of the Western Banās river); Vasantgarh (near Pindwāra), an old fort where an inscription of the time of Rājā Charmalāt has been found, dated A. D. 625; Nāndia, with a well-preserved Jain temple of the tenth century; and Wāsa near Rohera, where there is a famous temple to Sūrya (the sun-god) of the eleventh or twelfth century.

Population.

The State contains 413 towns and villages, and the population at each Census has been: (1881) 142,903, (1891) 190,836, and (1901) 154,544. Neither of the earlier enumerations included the Girāsiās of the Bhākar, a wild tract in the south-east. In 1881 they were omitted altogether, while in 1891 their number was roughly estimated at 2,860; the Census of 1901 was consequently the first complete one ever taken in the State. The decrease in the population of 19 per cent. during the last decade was largely due to the famine of 1899–1900. The State is divided into 14 *tahsīls* and contains 5 towns: namely, SIROHI (the capital), ABU, ABU ROAD, ERINPURA, and SHEOGANJ. Of the total population, more than 72 per cent. are Hindus, 11 per cent. Animists, and about 11 per cent. Jains. The language mainly spoken is a kind of Mārwāri.

The most numerous caste is that of the Mahājans, who number 18,900, or over 12 per cent. of the population; they are traders and money-lenders, and are mostly of the Oswāl and Porwāl divisions. Next come the Rājputs (13,400); some hold land and others are in State service, but the majority are cultivators. The Dhers, a very low caste, number 11,400; they remove all the dead animals of the village, tan leather, and cultivate to a certain extent. The Rebāris (11,400) are herdsmen and sometimes agriculturists. The only other caste exceeding 10,000 is that of the BHĪLS, who number 10,400. They are one of the aboriginal races of this part of India, and are to be found mostly in the hilly portions of the State. Naturally idle and thriftless, they cultivate only rains crops, as this entails but little labour; and they eke out their living by ruining the forests, by acting as guides, and by occasional plundering when opportunity offers. Allied to the Bhīls, but ranking just above them in the social scale, are the Girāsiās (7,754), who are said to be descendants of Rājputs by Bhīl women. As cultivators they are indifferent, but they possess a large number of cattle and goats. The main occupation of the people is agriculture, about 60 per cent. cultivating the land either on their own account or as day-labourers.

The soil of Sirohi is on the whole fertile, especially in the eastern valley bordering the Arāvallis. The principal crops are maize, *bājra*, *mūng*, *khulāt*, and *til* in the autumn, and barley, wheat, gram, and mustard in the spring. Cotton, tobacco, and *san*-hemp are grown in small quantities for local consumption. On the slopes of the hills the system of cultivation known as *wālar* or *wālra* has long been practised by the Bhīls and Girāsiās, and has proved most destructive to the forests. Trees are cut down and burnt, and the seeds of *sāma*, *māl*, and other inferior grains are sown in the ashes; but the system has now been prohibited throughout the State. No agricultural statistics are collected, but the Darbār estimates the area under cultivation at about 348 square miles, and the irrigated area at 80 square miles. Irrigation is mainly from wells, of which there are 5,157 in the State; water is drawn up by means of the Persian wheel called *arath*. During recent years four fairly large tanks, capable of irrigating about 4,700 acres, have been constructed; but the rainfall has been so scanty that till now they have been of very little use.

Agriculture.

Although a considerable portion of Sirohi is covered with trees and bush jungle, the forests proper may be said to be confined to the slopes of Abu and the belt round its base. The area here protected is about 9 square miles, and it contains a great variety of trees and shrubs. Among the most common may be mentioned the bamboo, mango, *siris* (*Albizzia Lebbek*), two or three varieties of the *dhao* (*Anogeissus pendula*), several of the fig tribe, such as the *bar* (*Ficus bengalensis*), *pīpal* (*F. religiosa*), and *gūlar* (*F. glomerata*), and showy flowering trees like the *kachnār* (*Bauhinia racemosa*), *phālūdra* (*Erythrina arborescens*), *semal* (*Bombax malabaricum*), and the *dhāk* (*Butea frondosa*). The Bhākar or hilly tract to the south-east bears evidence of having been at one time well wooded, but the forests have been for the most part destroyed by Bhīls and Girāsiās. The total area 'reserved' and protected is about 385 square miles, and the staff usually consists of a ranger, four foresters, and some guards. The annual expenditure is about Rs. 5,000 and the net revenue the same.

Forests.

The minerals of the State are unimportant. It is said that a copper-mine was formerly worked in the hills above the town of Sirohi, and that the marble of which the Jain temples at Abu are built came from near the village of Jhāriwao on the south-eastern frontier. Granite is found on Abu and is used to a considerable extent for building purposes; but as it breaks very irregularly in quarrying, and is extremely hard, it is expensive to work and not well adapted for masonry. Limestone is quarried at Selwāra near Anādra (west of Abu), and near Abu Road.

Trade and communications.

The only important manufactures are sword-blades, daggers, spears, knives, and bows made at the capital. Tod wrote that the 'sword-blades of Sirohi are as famed among the Rājputs as those of Damascus among the Persian and Turks.'

The chief exports are *til*, mustard-seed, raw and tanned hides, and *ghī*, while the chief imports include grain, piece-goods, salt, sugar, metal, tobacco, and opium. These are for the most part carried by the railway. The principal trade centres are Abu Road, Pindwāra, Rohera, and Sheoganj, whence a good many of the imported articles are sent by road into the outlying parts of the adjoining States: namely, Dānta, Idar, Mewār, and Mārwār.

The Rājputāna-Mālwā Railway runs through the eastern half of the State for about 40 miles, and has six stations. The total length of metalled roads is 20 miles, and of unmetalled roads 224 miles. Of these, 1½ miles metalled and 132 miles unmetalled are maintained by the Darbār, and the rest by the British Government or the Abu municipality. The most important road is that connecting Abu with Abu Road; it is 17 miles in length, metalled throughout, and was constructed and is entirely maintained by Government. The grand trunk road from Agra to Ahmadābād runs for about 68 miles through Sirohi territory; it was formerly metalled between Erinpura and Sirohi town, but since the opening of the railway in 1881 has been maintained only as a fair-weather communication. There are ten British post offices and four telegraph offices in the State.

Famine.

Sirohi often suffers from droughts more or less severe, but lies in a more rainy zone than its neighbour Jodhpur, and its wooded hills generally attract a fair share of the monsoon clouds. The years 1746, 1785, 1812, 1833, and 1848 are said to have been marked by famine, but no details are available. In 1868–9 there appears to have been scarcity rather than famine in this State, but owing to want of fodder from 50 to 75 per cent. of the cattle died. The late chief (Umed Singh) did all that his means permitted to assist his people and the numerous aliens who passed through on their way to and from the neighbouring territories; and, excluding the liberal charity dispensed from His Highness's private purse, the expenditure on relief appears to have been about Rs. 25,000. Famine prevailed throughout the State in 1899–1900; and the Darbār at once threw open the forest Reserves, established dépôts for the purchase of wood and grass, and sold grain to the poor at a cheaper rate than that prevailing in the market. Systematic relief, in the form of works and poorhouses, was started in January, 1900, and continued till October. The total number of units relieved was estimated at about 1,800,000, and the direct expenditure at nearly 1·5 lakhs. A sum of about

Rs. 48,000 was advanced to agriculturists, and remissions and suspensions of land revenue amounted to Rs. 25,000 and 2 lakhs respectively. A large amount was also given in private charity near the railway centres. Scarcity was again felt in 1901–2, but only in half the State, and the expenditure was about Rs. 34,000.

Administration.

The State is ruled by the Mahārao with the assistance of a Dīwān and other officials, such as the Revenue officer, the Judicial officer, and the Superintendent of Customs and Forests. In charge of each of the fourteen *tahsīls* is a *tahsīldar* with two assistants. In the administration of justice the codes of British India are largely followed. The lowest courts are those of *tahsīldārs*, who can punish with two months' imprisonment and Rs. 100 fine, and decide civil suits not exceeding Rs. 300 in value. The Judicial officer has the powers of a District Magistrate and District Judge, while the Dīwān has the powers of a Court of Session and disposes of civil suits exceeding Rs. 3,000 in value. The final appellate authority is the Mahārao, who alone can pass sentence of death.

The normal revenue of the State has fallen from about 4 lakhs in 1896–7 to about 3½ lakhs at the present time; the main sources are customs (1 lakh), land (Rs. 68,000), court-fees and fines (Rs. 25,000), and excise (Rs. 20,000). The ordinary expenditure may be put at 2·8 lakhs, the chief items being: army and police, Rs. 55,000; palace (including privy purse), Rs. 33,000; cost of administrative staff (civil and judicial), Rs. 23,000; stables (including elephants and camels), Rs. 20,000; and public works, Rs. 7,000. Owing largely to a series of indifferent years the State is in debt to the extent of about 4·5 lakhs, of which sum 1·8 lakhs is due to the British Government, being the balance of the amount lent to the Darbār during the recent famine and scarcity.

Sirohi has never had a coinage of its own; the coins most common were known as *Bhilāri* from having been minted in the eighteenth century at Bhīlwāra, a town in the Udaipur State. They have, however, been recently converted into British rupees, and since June, 1904, the latter have been the sole legal tender in the State.

The land revenue tenures are those usual in Rājputāna: namely, *khālsa*, *jāgīr*, and *sāsan*. Of the 413 villages in the State, 157 are *khālsa*, 202 *jāgīr*, and 54 *sāsan*. In the *khālsa* area the cultivators have a permanent occupancy right so long as they pay the State demand regularly. The land revenue is mostly collected in kind, and the Darbār's share varies from one-fourth to one-third of the produce according to the caste of the cultivator. In parts the revenue is paid in cash at a rate varying from Rs. 2 to Rs. 5 per plough. Rājputs, Bhīls, Mīnās, and Kolīs belong to the *dewāli band* or 'protectors of the village,' and pay reduced rates. There are three principal classes

of *jāgirdars*: the relatives of the chief, the Thākurs or descendants of those who assisted in conquering the country, and those who have received grants for good service. All pay tribute varying from three-eighths to one-half of the income of their estates, sometimes in cash and sometimes in kind, besides *nazarāna* or fee on succession, according to their means, and have also to serve when called upon. In the case of the chief's relatives, the right of adoption is not recognized; but the Thākurs, if they have no heirs, may adopt with the approval of the Darbār. Those who hold land in reward for services do so subject to the pleasure of the chief. *Sāsan* lands are those granted to temples and members of religious castes, such as Brāhmans, Chārans, and Bhāts; they are for all practical purposes grants in perpetuity and are held rent-free. The Girāsiās, the original inhabitants of the Bhākar, still retain their *bhūm* rights: that is, they hold free of rent or at reduced rates on condition of some particular service, such as watch and ward of their villages, &c. Lastly, on Abu the Loks have certain hereditary rights and hold their lands on very easy terms.

The military force consists of a company of 120 infantry, employed in guarding the jail and other miscellaneous duties at the capital, and 8 guns, of which 5 are serviceable. The annual cost is about Rs. 12,000. The cantonment of ERINPURA is the head-quarters of the 43rd (Erinpura) Regiment; and there is a detachment at ABU, which is also the sanitarium for British troops of the Mhow or 5th division of the Western Command. There are 110 members of the Bombay, Baroda, and Central India Railway Volunteer Rifles residing in the State at Abu or Abu Road.

The police force consists of 662 men, of whom 77 are mounted, distributed over 96 *thānas* or police stations. The annual cost is about Rs. 43,000. The Central jail is at the capital, and a small lock-up is maintained in each *tahsīl* for prisoners sentenced to not more than two months.

In regard to the literacy of its population Sirohi stands first among the States and chiefships of Rājputāna with 6·85 per cent. (12·4 males and 0·6 females) able to read and write, a position due to the comparatively large community of Europeans and Eurasians at Abu and Abu Road. The Darbār itself does very little to encourage education, the annual expenditure being about Rs. 800: namely, the cost of maintaining a single school at the capital, in which Urdū, Hindī, and a little English are taught to about 73 boys. There are elementary indigenous schools in every town and large village; a couple of railway schools at Abu Road; and three schools—the high school, the Lawrence school, and the municipal school—at Abu.

Excluding the Government military hospitals at Abu and Erinpura, five hospitals and one dispensary have been opened in the State, which

contain accommodation for 60 in-patients. Three are maintained by the State, two partly by the British Government and partly from private subscriptions, and one is a railway hospital. In 1904 the number of cases treated was 28,826, of whom 275 were in-patients, and 1,671 operations were performed.

Three vaccinators are employed, who in 1904–5 successfully vaccinated 7,161 persons, or more than 46 per 1,000 of the population, at a cost of about 16 pies per case.

[J. Tod, *Travels in Western India* (1839); *Rājputāna Gazetteer*, vol. iii (1880, under revision); A. Adams, *The Western Rājputāna States* (1899); *Administration Reports of the Sirohi State* (annually from 1889–90).]

Sirohi Town.—Capital of the State and head-quarters of the *tahsīl* of the same name in Rājputāna, situated in 24° 53′ N. and 72° 53′ E., about 16 miles north-west of Pindwāra station on the Rājputāna-Mālwā Railway. Population (1901), 5,651. The town is said to take its name from the Saranwa hill, on the western slope of which it stands. It was built by Rao Sains Mal about 1425, taking the place of the old capital, a little farther to the east, which was abandoned as the site was found unhealthy. About 2 miles to the north is the shrine of Sarneswar (a form of Siva), the tutelary deity of the chief. This was built about 500 years ago, and is surrounded by a fortified wall erected by one of the Musalmān kings of Mālwā, who is said to have been cured of a leprous disease by bathing in a *kūnd* or fountain close by. Outside and on the plain below are the cenotaphs of the Sirohi chiefs. The Mahārao's palace, which has been considerably enlarged during recent years, is picturesquely situated on the hill-side overlooking the town. The place is famous for its sword-blades, daggers, and knives. It contains a combined post and telegraph office; a well-arranged jail, which has accommodation for 135 prisoners, the daily average strength in 1904 having been 118; an Anglo-vernacular primary school, attended by about 70 boys; a good hospital with accommodation for 24 in-patients; and a small dispensary attached to the palace.

Siron.—Village in the Lalitpur *tahsīl* of Jhānsi District, United Provinces, situated in 24° 52′ N. and 78° 20′ E., 12 miles north-west of Lalitpur town. The place is of importance for the ruins in the neighbourhood. Remains, chiefly of Jain buildings, are scattered about and have been used to construct modern temples. A large slab in one of these contains an inscription, dated A.D. 907, from which it appears that this tract of country was then subject to the rule of KANAUJ.

[*Epigraphia Indica*, vol. i, p. 195.]

Sironchā.—Southern *tahsīl* of Chānda District, Central Provinces. In 1901 its area was 1,085 square miles, and its population was 51,148. The transfer of the *tāluks* of Nugur, Albāka, and Cherlā of the

Sironchā *tahsīl*, covering an area of 593 square miles and containing 142 villages with 20,218 persons, to the Madras Presidency has been sanctioned, but further details of administration are still being considered. In 1905 an area of 2,603 square miles of the Chānda *tahsīl*, of which 2,600 were in the Ahiri *zamīndāri* estate, was transferred to Sironchā. The revised totals of area and population of the Sironchā *tahsīl* are 3,095 square miles and 55,465 persons. The population in 1891 of the area now constituting the *tahsīl* was 51,732. The density is only 18 persons per square mile, and the *tahsīl* contains 421 inhabited villages. Its head-quarters are at Sironchā, a village of 2,813 inhabitants, 130 miles from Chānda town by road. The area of Government forest in the new *tahsīl* is 480 square miles, while 2,254 square miles of the Ahiri *zamindāri* are covered by tree forest, scrub jungle, or grass. The northern portion of the *tahsīl* comprised in the Ahiri *zamīndāri* is one of the most densely wooded and sparsely populated areas in the Province; to the south of this Sironchā extends in a long narrow strip to the east of the Godāvari, and consists of a belt of rich alluvial soil along the banks of the river and its affluents, with forests and hills in the background. The population is wholly Telugu. The land revenue demand of the *tahsīl* was approximately Rs. 17,000, before the revision of settlement now in progress.

Sironj District.—One of the Central India *parganas* of the State of Tonk, Rājputāna. It is for certain purposes included in the charge of the Political Agent, Bhopāl. It has an area of 879 square miles, and lies between 23° 52′ and 24° 21′ N. and 77° 17′ and 77° 57′ E., being bounded on the north, west, and east by Gwalior, on the south by Bhopāl and Gwalior, and in the south-east corner by an outlying portion of Kurwai. A ridge of the Vindhyas traverses the district from north to south, dividing it into two distinct tracts; that to the east is known as *taleti* ('lowland') and that to the west as *upreti* ('highland'). There are no large rivers; the Sind rises here, but does not attain to any size till it has entered the Gwalior State on the north. The population in 1901 was 68,539, compared with 93,856 in 1891. There are 436 villages and one town, SIRONJ (population, 10,417). The principal castes are Chamārs, Kāchhis, Brāhmans, Rājputs, and Ahīrs, forming respectively about 14, 8, 6, 6, and 5½ per cent. of the total. The district is said to have been occupied in the eleventh century by Sengar Rājputs, who came to Mālwā with Jai Singh Siddh-rāj of Anhilvāda Pātan. In the sixteenth century their descendants opposed the advance of Sher Shāh, who consequently devastated the country, having his head-quarters at the principal town, which was called after him Sherganj, now corrupted to Sironj. In Akbar's time, the district was one of the *mahāls* of the Chanderi *sarkār* in the *Sūbah* of Mālwā, and was granted in *jāgir* by the emperor to Gharīb Dās, Khīchī Chauhān of Rāghugarh,

as a reward for services. From 1736 to 1754 it was held by Bājī Rao Peshwā, and then passed into the possession of Holkar. In 1798 it was made over by Jaswant Rao Holkar to Amīr Khān, and the grant was confirmed by the British Government in the treaty of 1817. Sironj is the largest, and in many respects the most naturally favoured, district of the Tonk State. Of the total area, more than 729 square miles, or 83 per cent., are *khālsa*, paying revenue direct to the Tonk Darbār; and the *khālsa* area available for cultivation is about 603 square miles. Of the latter, about 128 square miles, or 21 per cent., were cultivated in 1903-4, the irrigated area being 2 square miles. Of the cropped area, wheat occupied nearly 29 per cent., *jowār* 28, gram 19, maize 8, and cotton 4½ per cent. The revenue from all sources is about 1·6 lakhs, of which two-thirds is derived from the land.

Sironj Town.—Head-quarters of the *pargana* of the same name in the State of Tonk, Rājputāna (within the limits of the Central India Agency), situated in 24° 6′ N. and 77° 43′ E., about 200 miles south-east of Tonk city, and connected with the Kethora station of the Great Indian Peninsula Railway by a metalled road about 30 miles in length. Population (1901), 10,417. Sironj, in olden times, was doubtless a considerable city, situated on the direct route between the Deccan and Agra; but it has decayed rapidly, and its great empty bazars and the ruins of many fine houses alone testify to its former importance. Tavernier, who visited it in the seventeenth century, spoke of it as being crowded with merchants and artisans, and famous for its muslins and chintzes. Of the muslin he wrote that it was

> 'so fine that when it is on the person, you see all the skin as though it were uncovered. The merchants are not allowed to export it, and the governor sends all of it for the great Mughal's seraglio and for the principal courtiers.'

This manufacture has unfortunately died out, and no recollection of its having once formed the staple trade of the place survives. The town possesses a post office, a small jail, an Anglo-vernacular school, and a dispensary for out-patients.

Sirpur Tāluk.—*Tāluk* in Adilābād District, Hyderābād State, with an area of 2,214 square miles. The population in 1901, including *jāgīrs*, was 135,694, compared with 106,745 in 1891. The *tāluk* contains 435 villages, of which 49 are *jāgīr*, and Sirpur (population, 3,134) is its head-quarters. The land revenue in 1901 was Rs. 81,800. In 1905 part of this *tāluk* was transferred to form the new *tāluk* of Jangaon. It is very sparsely populated, and contains a large extent of cultivable waste and forests.

Sirpur Village.—Village in the Bāsim *tāluk* of Akola District, Berār, situated in 20° 11′ N. and 77° E. Population (1901), 3,809.

The old temple of Antariksha Pārsvanātha belonging to the Digambara Jain community has an inscription with a date which has been read as 1406. The temple was probably built at least a hundred years before the date of the inscription. The tradition is that Yelluk, a Rājā of Ellichpur, probably an eponymous hero, found the idol on the banks of a river, and that his prayers for permission to transport it to his own city was granted on condition of his not looking back. At Sirpur, however, his faith became weak, and he looked back. The idol instantly became immovable and remained suspended in mid-air for many years.

Sirpur Tāndūr[1] (also known as the *Amaldāri*).—Formerly a sub-district in the Bīdar Division of Hyderābād State, lying between 19° 0′ and 19° 56′ N. and 77° 53′ and 80° 0′ E., with an area of 5,029 square miles, of which 4,842 square miles are *khālsa*, the rest being *jāgīr*. It is bounded on the north and east by the Yeotmāl District of Berār and the Chānda District of the Central Provinces; on the south by the Karīmnagar and Nizāmābād Districts of Hyderābād; and on the west by the Nānder District of Hyderābād and the Yeotmāl District of Berār. The river Pengangā separates it from Berār on the north, and the Wardhā and Pranhitā divide it from Chānda on the east. The Sahyādriparvat or SĀTMĀLA range traverses the sub-district from the north-west to the south-east for about 175 miles. Other hills in the east are of minor importance.

Physical aspects.

The PENGANGĀ is the most important river. It runs along the western and northern borders of the sub-district, until it falls into the Wardhā, north of the Rājūra *tāluk*. The Wardhā passes along the eastern border of the Rājūra *tāluk*. The other streams are the Pedda-vāgu, an affluent of the Wardhā, 100 miles long, and the Kāpnāvarli and Amlūn, tributaries of the Pengangā, the latter rising in the Sahyādriparvat range.

The geological formations are the Archaean gneiss; the Cuddapah, Sullavai, and Gondwāna series, the latter including Tālcher, Barākar, Kamptee, Kota-Māleri, and Chikiala beds; and the Deccan trap[2].

The sub-district is clothed with scrubby jungle and brushwood, besides having a very large extent of forests, which contain teak, ebony, sandal-wood, rosewood, *dhaurā* (*Anogeissus latifolia*), *bilgu* (*Chloroxylon Swietenia*), tamarind, mango, *nīm*, and *kuchla* (*Nux vomica*).

The hills abound in wild animals, such as tigers, leopards, bears, hyenas, wolves, wild dogs, *nīlgai*, and spotted deer. Wild duck, partridges, jungle-fowl, and peafowl are to be found everywhere.

[1] The sub-district no longer exists; see paragraph on Population below, and article on ADILĀBĀD DISTRICT, which has taken the place of Sirpur Tāndūr.

[2] W. King, *Memoirs, Geological Survey of India*, vol. xviii, pt. iii.

The climate is most unhealthy, but the *tāluk* of Edlābād is not so malarious as Rājūra and Sirpur, and the villages on the plain are healthier than those situated in the hilly portions of the sub-district. The temperature ranges from 60° in December to 105° in May. The annual rainfall for the twenty-one years ending 1901 averaged 41 inches. In September, 1891, the Pengangā rose in high flood, and devastated most of the villages situated on its banks. The flood continued for three days, and people had to take refuge in trees and on high grounds. A large number of cattle were drowned. In 1903 a slight shock of earthquake was felt.

History.

Very little is known of the history of the sub-district prior to its becoming part of Hyderābād State. It is said that at one period the *tāluk* of Rājūra belonged to a Gond Rājā, and subsequently passed to the Bhonslas.

An old fort on a hill near Māhūr in the Edlābād *tāluk* contains a masonry palace, a mosque, and two large domed buildings. At the foot of a hill, west of Māhūr, is the Pāndo Lena, a cave consisting of two halls, one of which contains a temple. An old temple on the Māhūr hill, 180 feet square and 54 feet high, gives shelter to 400 *gosains* and their *mahant*. *Jāgīrs* have been granted for the expenses of this temple. The Mānikgarh fort is said to have been built by a Gond Rājā.

Population.

The number of towns and villages in the sub-district is 984. Its population at each Census was: (1881) 214,674, (1891) 231,754, and (1901) 272,815. It is divided into the three *tāluks* of Edlābād, Rājūra, and Sirpur, which are all very sparsely populated. ADILĀBĀD (Edlābād) is the only town. More than 76 per cent. of the population are Hindus, 18 per cent. Animists (Gonds), and only 5 per cent. Musalmāns. About 44 per cent. of the people speak Telugu and 28 per cent. Marāthī. The following table shows the distribution of population in 1901:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Edlābād . .	2,168	1	390	104,891	48	+ 13·1	Not available.
Rājūra . .	545	...	99	20,649	38	− 3·5	
Sirpur . .	2,129	...	386	120,500	56	+ 27·1	
Jāgīrs, &c. .	187	...	108	26,775	143	+ 12·9	
Sub-district total	5,029	1	983	272,815	54	+ 17·7	2,323

In 1905 the sub-district was constituted an independent District, under the name of ADILĀBĀD. It gained two *tāluks*, Nirmal and Narsāpur, from Nizāmābad (Indūr) District, and two, Chinnūr and

Lakhsetipet, from Karīmnagar (Elgandal). The northern portions of Nirmal and Narsāpur, with part of Edlābād, have been formed into a new *tāluk*, Kinwat, the remaining portion of Narsāpur being merged in Nirmal. A new *tāluk*, Jangaon, has been formed midway between Sirpur and Lakhsetipet, consisting of villages from these two.

The Kāpus or Kunbīs are the most numerous agricultural caste, numbering 46,400, or 17 per cent. of the total population. Other well-known agricultural castes are the Munnūrs (5,300), Kolis (4,200), and Banjārās (3,700). The labouring castes are Dhangars or shepherds (15,300), Mahārs or village menials (8,000), Māngs or leather-workers (8,000), Andhs or carriers (7,900), and Panchāls or smiths (7,500). The last two are strongly represented in this District. Of the trading castes, there are 4,691 Komatis, 2,177 Vānīs, and 1,213 Mārwāris. Brāhmans number only 3,300. The population engaged in agriculture is 156,200, or 57 per cent. of the total. There were only 3 native Christians in 1901.

Agriculture.

The sub-district is situated partly in the trap and partly in the granitic region, the chief soils being *regar* or black cotton, and *kharab* or sandy. *Regar* predominates in the Rājūra *tāluk*, and sandy and reddish soils in Sirpur, the Edlābād *tāluk* being midway between. Hence rice and *kharīf* crops are grown in Sirpur, the former being irrigated from tanks and wells, while in Rājūra *rabi* crops predominate, and in the Edlābād *tāluk kharīf* and *rabi* are almost equally balanced. The soils at the foot of the hills and on the borders of the rivers are very fertile, producing wheat, cotton, and gram.

The tenure of lands is mainly *ryotwāri*. The *khālsa* lands covered 4,842 square miles in 1901, of which 552 were cultivated, 1,633 were occupied by cultivable waste and fallows, 2,213 by forests, and 444 were not available for cultivation. The staple food-crop is *jowār*, grown on about half of the net area cropped. Rice and wheat occupy 4 and 3 square miles; and oilseeds, fibres, and cotton are grown on 54, 29, and 25 square miles, respectively.

The sub-district has not been surveyed, and is very thinly populated, containing extensive tracts of protected and unprotected forests and scrubby jungle, and cultivation is in a very backward condition. No steps have been taken to improve agricultural methods, but the cultivated area has increased during the past twenty years by about 8 per cent.

The cattle bred locally are strong, and the buffaloes of the Māhūr *pargana* in the Edlābād *tāluk* are noted as first-class milkers. There is also a small-sized breed of bullocks, which are very fast trotters. Bullocks of superior quality fetch Rs. 200 a pair, and the ordinary cattle sell at from Rs. 75 to Rs. 100 a pair. Ponies, sheep, and goats are of the ordinary kind.

The irrigated area covers only 6½ square miles, which is supplied by

223 tanks, large and small, 99 wells, and 17 channels, all in good repair. The largest area under 'wet' cultivation is in the Sirpur *tāluk*. Quite recently a dam and three large tanks have been constructed in the Edlābād *tāluk*, at a total cost of nearly Rs. 50,000, securing a revenue of Rs. 7,500.

Forests.

The sub-district has a very large extent of forests. The protected area covers 2,213 square miles, and the unprotected 2,000 square miles. It is proposed to utilize part of the cultivable waste for planting forests. The principal timber trees are teak, *tunki* or ebony (*Diospyros melanoxylon*), *bilgu* (*Chloroxylon Swietenia*), *jittigi* (*Dalbergia latifolia*), *bijāsāl* (*Pterocarpus Marsupium*), *dhaurā* (*Anogeissus latifolia*), and rosewood. The income from the sale of timber in 1901 was Rs. 25,200.

Talc, limestone, and laminated limestone of a quality superior to the Shāhābād stone, and *chalpā*, a red mineral, are found in the Edlābād *tāluk*. On the Rājulgutta hill in the Sirpur *tāluk*, soapstone and iron occur. Coal is found near Sāsti and Poona villages in the Rājūra *tāluk*, and experimental excavations were made in 1874-5; but satisfactory results were not obtained, and the work was abandoned. There are three coal-mines near the Sāsti village. Sulphur also exists, but is not worked.

Trade and communications.

There are no important hand industries. The weavers make coarse cotton cloth, such as *dhotīs* and *sārīs*, for local use. The Rangāris or dyers print cloth for screens and quilts. Ordinary agricultural implements are made by blacksmiths. Leathern water-bottles (*chhāgals*) are made in Sirpur.

The chief exports are cotton, linseed, gingelly, and some grain and cattle. The main imports consist of rice, salt, kerosene oil, opium, cloth, spices, gold, silver, brass, and copper. Komatis, Mārwāris, and Kachchis are the principal traders.

No railway or metalled road has been made in the sub-district. The old Nāgpur road between Mannūr and Sāngri, 38 miles long, is unmetalled. From Edlābād to Rājūra and Sirpur there is only a cart track.

Famine.

No information is available regarding famines in this area. During 1900, when famine was raging in the Aurangābād Division, the ryots here were well off; but the influx of people from the adjoining Hyderābād and British famine-stricken Districts caused some distress, and a poorhouse was opened at Edlābād for 800 destitute persons. It cost the State only Rs. 2,982.

Administration.

The sub-district was divided into two subdivisions—one, consisting of the *tāluk* of Edlābād, under the Amaldār, corresponding to a First Tālukdār, while the second comprised the *tāluks* of Sirpur and Rājūra, under a Third Tālukdār. There is a *tahsīldār* in each of the *tāluks*.

The Amaldār was the chief Magistrate as well as Civil Judge of the sub-district. The Third Tālukdār and three *tahsīldārs* exercise magisterial powers of the second and third class. These officers also preside over the subdivisional and *tahsīl* civil courts. The Amaldār heard appeals from all the courts subordinate to him. There is little serious crime.

Prior to the formation of Districts in 1866, the revenue of the *tāluks* of Edlābād and Sirpur was farmed out, but in 1866 these *tāluks* were included in Indūr District. Rājūra was a *jāgīr tāluk* granted for the payment of troops. In 1867 the first two *tāluks* were transferred to Elgandal District, but were made over to Indūr in 1869. In 1872 the *jāgīr tāluk* of Rājūra was resumed, and with the other two *tāluks* was formed into an Amaldāri or sub-district. The sub-district has not been surveyed. The average assessment on 'dry' land is Rs. 6–0 per acre (maximum Rs. 8–1, minimum R. 0–2), and on 'wet' land Rs. 15 (maximum Rs. 25, minimum Rs. 6).

The land revenue and the total revenue for a series of years are shown below, in thousands of rupees:—

	1881.	1891.	1901.	1903.
Land revenue . .	2,11	2,33	2,62	2,62
Total revenue . .	3,03	3,04	4,66	3,53

Owing to the changes in area made in 1905, the revenue demand of Adilābād District is now about 6·5 lakhs.

There is no local board in the sub-district. The income from the road cess and ferries is spent on works of public utility. A small conservancy establishment is maintained at the head-quarters of the sub-district and of the other two *tāluks*. The total income is Rs. 3,663, of which Rs. 2,482 is obtained from road cess and Rs. 1,181 from ferries.

The Amaldār is the head of the police, with the Superintendent (*Mohtamim*) as his executive deputy. Under the latter are 4 inspectors, 43 subordinate officers, 155 constables, and 25 Sikh mounted police. These are distributed at 18 police stations. There is a jail at Edlābād, where prisoners are kept whose term does not exceed six months, those with longer terms being sent to the Central jail at Nizāmābād. The jail has accommodation for 50 prisoners.

The sub-district takes a very inferior place as regards the literacy of its population, of whom less than one per cent. (1·6 males and 0·17 females) could read and write in 1901. The total number of pupils under instruction in the sub-district in 1891, 1901, and 1903 was 360, 342, and 394 respectively. In 1903 there were four primary

schools. The whole of the cost, amounting to Rs. 2,290 per annum, is borne by the Educational department. In 1901 fees brought in Rs. 218.

There are two dispensaries, at which the number of cases treated in 1901 was 5,785, and the number of operations performed was 167. The expenditure was Rs. 6,616. The number of persons vaccinated in the same year was 397, or 1·45 per 1,000 of population.

Sirsa Tahsīl.—*Tahsīl* and subdivision of Hissār District, Punjab, lying between 29° 13′ and 30° 0′ N. and 74° 29′ and 75° 18′ E., on the borders of the Bīkaner desert, with an area of 1,642 square miles. The population in 1901 was 158,651, compared with 178,586 in 1891. The town of Sirsa (population, 15,800) is the head-quarters. It also contains 3 other towns and 306 villages. The land revenue and cesses in 1903–4 amounted to 2·9 lakhs. The whole of the *tahsīl* is sandy, except the belt of stiff clay which forms the Ghaggar basin, and depends for its successful cultivation on the river floods, which, below the Otu lake and dam, are distributed over the country by the Ghaggar canals. There is some irrigation in the north from the Sirhind Canal, and in the south from the Western Jumna Canal.

Sirsa Town (1).—Head-quarters of the subdivision and *tahsīl* of the same name in Hissār District, Punjab, situated in 29° 32′ N. and 75° 2′ E., on the Rewāri-Bhatinda branch of the Rājputāna-Mālwā Railway, on the north side of a dry bed of the Ghaggar. Population (1901), 15,800. The old town of Sirsa or Sarsūti is of great antiquity, and tradition ascribes its origin to an eponymous Rājā Sāras, who built the town and fort about 1,300 years ago. Under the name of Sarsūti, it is mentioned as the place near which Prithwi Rāj was captured after his defeat by Muhammad of Ghor in 1192; and according to Wassāf it was in the fourteenth century one of the most important towns in Upper India. It was taken by Tīmūr, the inhabitants fleeing before him, and is mentioned in the reign of Mubārak Shāh as the rendezvous of the expedition against the rebel fortress of Sirhind. In the reign of Sher Shāh, Sirsa became for a time the head-quarters of Rao Kalyān Singh of Bīkaner, who had been driven from his country by the Rao of Jodhpur. In the eighteenth century Sirsa was one of the strongholds of the Bhattis, and was taken by Amar Singh of Patiāla in 1774, but restored to the Bhattis by the agreement of 1781. The town was depopulated by the great famine of 1783, and the site was annexed in 1818 after the expedition sent against the Bhatti chief, Nawāb Zābita Khān. In 1838 Sirsa, which had lain deserted since 1783, was refounded by Captain Thoresby, who laid out the present town, which from 1858 to 1884 was the head-quarters of the Sirsa District. The ruins of Old Sirsa lie near the south-west corner of the modern town, and still present considerable remains, though much of

the material has been used for building the new houses. It contains an ancient Hindu fort and tank.

The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs.23,300 and the expenditure Rs.23,900. In 1903–4 income and expenditure each amounted to Rs. 18,100, the chief source of income being octroi. The town is a centre of the export trade to Rājputāna, and is in a flourishing condition. Most of the trade is in the hands of Baniās from Rājputāna and the country to the south-east. Sirsa contains a dispensary, an Anglo-vernacular middle school maintained by the municipality, and an aided primary school for European boys.

Sirsā Town (2).—Town in the Mejā *tahsīl* of Allahābād District, United Provinces, situated in 25° 16′ N. and 82° 6′ E., on the East Indian Railway. Population (1901), 4,159. Sirsā is administered under Act XX of 1856, with an income of about Rs. 1,000. It is the most important mart in the District outside Allahābād city. The trade is chiefly concerned with the export of grain and oilseeds to Bengal and Calcutta. A middle school has 88 pupils.

Sirsāganj.—Village in the Shikohābād *tahsīl* of Mainpuri District, United Provinces, situated in 27° 3′ N. and 78° 43′ E., 6 miles north of Bhadān station on the East Indian Railway. Population (1901), 4,122. The village of Sirsā is purely agricultural; but Sirsāganj, the market adjoining it, is the greatest centre of trade in the District. It consists of one principal street with a market-place called Raikesganj, after the Collector who improved it. Trade is chiefly in grain, cotton, and hides, and a small cotton gin has been opened. Sirsāganj is administered under Act XX of 1856, with an income of about Rs. 1,300. It contains a primary school with about 50 pupils.

Sirsi State.—*Thakurāt* in the MĀLWĀ AGENCY, Central India.

Sirsi Tāluka.—Eastern *tāluka* of North Kanara District, Bombay, lying between 14° 30′ and 14° 50′ N. and 74° 34′ and 75° 3′ E., with an area of 490 square miles. It contains one town, SIRSI (population, 6,196), the head-quarters; and 244 villages. The population in 1901 was 53,232, compared with 53,976 in 1891. The density, 109 persons per square mile, is slightly below the District average. The demand for land revenue in 1903–4 was 1·5 lakhs, and for cesses Rs. 10,000. The Western Ghāts rise on the western boundary of the *tāluka*, and in their neighbourhood lie deep moist valleys containing rich garden land between hills covered with evergreen forest. The country, as far as the middle of the *tāluka*, is covered with trees. Farther east, except some scattered evergreen patches, the forest becomes gradually thinner, and the trees more stunted. Sirsi is generally healthy, but is malarious between October and March. Water for drinking and irrigation is abundant. The staple crops are rice, sugar-cane, gram, *mūg*, *kulith*,

udid, and castor-oil. Garden products comprise areca-nuts, cardamoms, coco-nuts, and black pepper. The *tāluka* forms an immense forest Reserve. Bamboo, teak, and sago-palm are the chief forest products. The annual rainfall averages 100 inches.

Sirsi Town (1).—Head-quarters of the *tāluka* of the same name in North Kanara District, Bombay, situated in 14° 37′ N. and 74° 50′ E., 320 miles south-east of Bombay city, and about 60 miles south-east of Kārwār; 2,500 feet above sea-level. Population (1901), 6,196, including suburbs. The ground on which the town stands consists of quartz and gravel, the highest points of which are covered by a bed of laterite, while in the ravines on the western and northern sides there is micaceous schist broken through by diorite. Sirsi has been a municipality since 1866, with an average income during the decade ending 1901 of Rs. 15,000. In 1903–4 the income was Rs. 23,000. Every alternate year a fair is held in honour of the deity Mari, which lasts for a week, and is attended chiefly by low-caste Hindus to the number of about 10,000 persons. Colonel Wellesley in 1800 sent a battalion to Sirsi to drive out banditti. The town contains a Subordinate Judge's court, a dispensary, a middle school, and three other schools.

Sirsi Town (2).—Town in the Sambhal *tahsīl* of Morādābād District, United Provinces, situated in 28° 38′ N. and 78° 39′ E., 16 miles south-west of Morādābād city. Population (1901), 5,894. It is administered under Act XX of 1856, with an income of about Rs. 1,100. There is a small industry of cotton-weaving. The primary school has 105 pupils.

Sirsilla.—*Tāluk* in Karīmnagar District, Hyderābād State, with an area of 1,018 square miles. The population in 1901, including *jāgīrs*, was 123,722, compared with 134,337 in 1891, the decrease being due to famine and cholera. The *tāluk* contains one *jāgīr* town, VEMALWĀDĀ (population, 5,372), and 178 villages, of which 24 are *jāgīr*, while Sirsilla (3,400) is the head-quarters. The land revenue in 1901 was 3·9 lakhs. Rice is largely grown by means of tank and well irrigation. The Māner river crosses the south of the *tāluk*. Its soils are mostly sandy, and well suited for *kharīf* crops, which are largely grown. In 1905 a few villages were transferred from this *tāluk* to Kāmāreddipet in Nizāmābād District.

Siruguppa.—Town in the northern corner of the Bellary *tāluk* of Bellary District, Madras, situated in 15° 39′ N. and 76° 53′ E. It is the head-quarters of a deputy-*tahsīldār*. Population (1901), 5,805. It stands on a narrow branch of the Tungabhadra, which splits just above it into two channels, enclosing between them the island of Desanūru, 6 miles long. The picturesque reach which separates the town from the island is flanked for about a quarter of a mile by the old Siruguppa fort, while the other bank is fringed with the coco-nut palms of the

island. The name Siruguppa means 'pile of wealth,' and is well earned by the striking contrast which its rich 'wet' land, watered by two branches of a channel from the river, affords to the 'dry' land around it. These fields are the most fertile in the District. From them are sent to Bellary and Adoni large quantities of rice, plantains, coco-nuts, sweet potatoes, pineapples, and garlic. The town boasts a larger revenue assessment (Rs. 26,000) than any other in the District. It has not, however, advanced rapidly in size. It lost 9 per cent. of its population in the great famine of 1877, and during the thirty years between 1871 and 1901 the inhabitants increased by only 5 per cent.

Sirūr Tāluka.—*Tāluka* of Poona District, Bombay, lying between 18° 29′ and 19° 2′ N. and 74° and 74° 35′ E., with an area of 601 square miles. It contains one town, SIRŪR (population, 7,212), the head-quarters; and 78 villages, including TALEGAON-DHAMDHERE (6,468). The population in 1901 was 65,992, compared with 85,222 in 1891. The density, 110 persons per square mile, is the lowest in the District. The demand for land revenue in 1903–4 was 1·6 lakhs, and for cesses Rs. 12,000. Sirūr consists of stony uplands seamed towards the centre by rugged valleys, but towards its river boundaries sloping into more open plains. The chief features are low hills and uplands. The low hills are occasionally rugged and steep; the uplands, in some parts poor and stony, have in other parts rich tracts of good soil. In the south-east corner the country opens out with gentle undulations into a fairly level plain. It is throughout sparsely wooded. The prevailing soil is a light friable grey, freely mixed with gravel. The best upland soils are very productive, even with a comparatively scanty rainfall, which averages only 22 inches annually.

Sirūr Town (or Ghodnadi).—Head-quarters of the *tāluka* of the same name in Poona District, Bombay, situated in 18° 50′ N. and 74° 20′ E., on the Ghod river, 36 miles north-east of Poona city and 34 miles south-west of Ahmadnagar. Elevation, about 1,750 feet above sea-level. Population (1901), 7,212. The country around is hilly and uncultivated. Sirūr has been a municipality since 1868, with an average income during the decade ending 1901 of Rs. 12,000. In 1903–4 the income was Rs. 13,000. It contains many money-lenders, traders, and shopkeepers, who trade in cloth and grain. At the weekly market on Saturdays large numbers of cattle and horses are sold. The garrison of Sirūr consists of a regiment of native cavalry. The most notable monument in the cemetery is the tomb of Colonel W. Wallace (1809), who is still remembered at Sirūr as *Sat Purush*, 'the holy man.' Except Brāhmans and Mārwāris, all the Hindus of Sirūr and neighbouring villages worship at Colonel Wallace's tomb. At harvest-time the villagers bring firstfruits of grain as *naivedya* or 'food for the saintly spirit.' At a hamlet about 2 miles south of the town a Hindu

fair attended by about 3,000 persons is held yearly in March or April. The town contains five boys' schools with 385 pupils, and two girls' schools with 177. A branch of the American Marāthī Mission maintains two orphanages and four schools, including an industrial school. One of the late members of the mission planted an extensive agave plantation here, the plants having been specially procured from Mexico. A branch of the Salvation Army was founded in 1893.

Sirūr Village.—Village in the Bāgalkot *tāluka* of Bijāpur District, Bombay, situated in 16° 6′ N. and 75° 48′ E., 9 miles south-west of Bāgalkot town. Population (1901), 4,946. It contains five temples and a number of inscriptions dating from the eleventh and twelfth centuries, some of which relate to a Kolhāpur family feudatory to the Chālukyas.

Siruttondanallūr.—Town in the Srīvaikuntam *tāluk* of Tinnevelly District, Madras, situated in 8° 39′ N. and 78° 2′ E. Population (1901), 6,099.

Sirvel.—*Tāluk* of Kurnool District, Madras, lying between 14° 54′ and 15° 26′ N. and 78° 22′ and 78° 46′ E., with an area of 613 square miles. The population in 1901 was 73,387, compared with 65,168 in 1891, the density being 120 persons per square mile, compared with the District average of 115. The *tāluk* contains 86 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 2,32,000. It is situated in the Kunderu valley, and is bounded on the north by the Nandyāl *tāluk*, on the west by Koilkuntla, and on the east by the Nallamalais. The western half is composed of black cotton soil, and is commanded by the Kurnool-Cuddapah Canal, which supplies 6,200 acres. The eastern half, adjoining the sandstone hills of the Nallamalais, has a red ferruginous soil. This portion is cut up by several streams into narrow valleys clothed with fine jungle, and presents a pleasant contrast to the other portion, which is dry and arid. 'Reserved' forests on the Nallamalais cover 202 square miles.

Sisāngchandli.—Petty State in Kāthiāwār, Bombay.

Sītābaldī.—Small hill and fort in Nāgpur city, Central Provinces, situated in 21° 9′ N. and 79° 7′ E. It was the scene of an important action in 1817. War between the British and the Peshwā of Poona had begun on November 14; but Appa Sāhib, the Bhonsla Rājā of Nāgpur, was nominally in alliance with the British, and Mr. (afterwards Sir Richard) Jenkins was Resident at his court. On November 24, however, Appa Sāhib received in public *darbār* a golden standard sent by the Peshwā and the title of general-in-chief of the Marāthā armies. This was held to be a declaration of hostility; and the Subsidiary force at Nāgpur, consisting of the 20th and 24th Madras Infantry, both very weak, 3 troops of Bengal cavalry, and 4 six-pounder guns, occupied Sītābaldī, a position consisting of two eminences joined by a narrow

neck of ground about 300 yards in length, that to the north being smaller than the other. Here during the night of November 26 and the following day they were attacked by the Nāgpur troops, numbering 18,000 men, of whom a fourth were Arabs, with 36 guns. Numerous charges were repulsed, until at 9 a.m. on the 27th the explosion of an ammunition cart threw the defenders of the smaller hill into confusion, and it was carried by the enemy. The advantages afforded by the position to the British troops had now to a large extent been lost, the larger hill being within easy musket-range of the smaller. Officers and men were falling fast, and the enemy began to close in for a general assault on the position. At this critical moment the cavalry commander, Captain Fitzgerald, formed up his troops outside the Residency enclosure below the hill, where they had been waiting, charged the enemy's horse and captured a small battery. The dispirited infantry took heart on seeing this success, and the smaller hill was retaken by a combined effort. A second cavalry charge completed the discomfiture of the enemy, and by noon the battle was over. The British lost 367 killed and wounded. In a few days the Resident was reinforced by fresh troops, and demanded the disbandment of the Nāgpur army. Appa Sāhib himself surrendered, but his troops prepared for resistance; and on December 16 was fought the battle of Nāgpur over the ground lying between the Nāg river, the Sakardarā tank, and the Sonegaon road. The Marāthā army was completely defeated and lost its whole camp with 40 elephants, 41 guns in battery, and 23 in a neighbouring dépôt. The result of this battle was the cession of all the Nāgpur territories north of the Narbadā, and Northern Berār.

Sitākund (1).—Hot springs in the head-quarters subdivision of Monghyr District, Bengal, situated 4 miles east of Monghyr town. The springs, which are enclosed in masonry reservoirs, are visited by large numbers of pilgrims each year, especially at the full moon of Māgh.

Sitākund (2).—Village in the head-quarters subdivision of Chittagong District, Eastern Bengal and Assam, situated in 22° 38′ N. and 91° 39′ E., 24 miles north of Chittagong town. Population (1901), 1,329. It gives its name to a range of hills running north from Chittagong town, which reaches its highest elevation (1,155 feet) at Sitākund. In the vicinity are the famous temples of Sambhunāth, Chandranāth, Labanakhya, and Bārabakund, which are picturesquely situated on hill-tops or in romantic glens, and are visited by pilgrims from all parts of Bengal. The largest gathering takes place at the Siva Chaturdasi festival, when some 20,000 pilgrims assemble. The Puri Lodging-House Act is in force, and a good supply of drinking-water is provided. A feature of the locality is the inflammable gas which issues from crevices in the rocks. There are some Buddhist remains which are held sacred by the hillmen.

Sītāmarhi Subdivision.—Northern subdivision of Muzaffarpur District, Bengal, lying between 26° 16′ and 26° 53′ N. and 85° 11′ and 85° 50′ E., with an area of 1,016 square miles. The subdivision is a low-lying alluvial plain, traversed at intervals by ridges of higher ground. The population rose from 924,396 in 1891 to 986,582 in 1901, when there were 971 persons per square mile. In spite of the fact that it is particularly liable to crop failures and bore the brunt of the famine of 1896–7, this is the most progressive part of the District and has been growing steadily since the first Census in 1872; it attracts settlers both from Nepāl and from the south of the District. The subdivision contains one town, SĪTĀMARHI (population, 9,538), the head-quarters; and 996 villages. BAIRAGNIĀ, the terminus of a branch of the Bengal and North-Western Railway, is an important market for the frontier trade with Nepāl. The subdivision is noted for its breed of cattle, and an important fair is held annually at Sītāmarhi in March–April.

Sītāmarhi Town.—Head-quarters of the subdivision of the same name in Muzaffarpur District, Bengal, situated in 26° 35′ N. and 85° 29′ E., on the west bank of the Lakhandai river. Population (1901), 9,538. A large fair lasting a fortnight is held here about the end of March, and is attended by people from very great distances. Siwān pottery, spices, brass utensils, and cotton cloth form the staple articles of commerce; but the fair is especially noted for the large quantity of bullocks brought to it, the Sītāmarhi cattle being a noted breed. Tradition relates that the lovely Jānakī or Sītā here sprang to life out of an earthen pot into which Rājā Janaka had driven his ploughshare. Sītāmarhi is situated on a branch of the Bengal and North-Western Railway, and is also connected by road with the Nepāl frontier, Darbhangā, and Muzaffarpur. The Lakhandai river is spanned by a fine brick bridge. The town has a large trade in rice, *sakhwā* wood, oilseeds, hides, and Nepāl produce. The chief manufactures are saltpetre and the *janeo* or sacred thread worn by the twice-born castes. Sītāmarhi was constituted a municipality in 1882. The income during the decade ending 1901–2 averaged Rs. 9,900, and the expenditure Rs. 7,800. In 1903–4 the income was Rs. 12,000, half of which was derived from a tax on persons (or property tax); and the expenditure was Rs. 8,000. The town contains the usual public offices; the sub-jail has accommodation for 26 prisoners.

Sītāmau State.—One of the mediatized States of the Central India Agency, under the Political Agent in Mālwā, lying between 23° 48′ and 24° 8′ N. and 75° 15′ and 75° 32′ E., with an area of about 350 square miles, of which 239 square miles, or 68 per cent., have been alienated in *jāgīr* grants. It is bounded on the north by the Indore and Gwalior States; on the south by Jaorā and Dewās; on the east by the Jhālawār State in Rājputāna; and on the west by Gwalior. The

place after which it takes its name was founded by a Mīnā chief, Sātaji, the name Sātāmau, or village of Sāta, having been metamorphosed into the more orthodox name of Sītāmau. The State is situated on the Mālwā plateau, and its geological conditions, flora, and fauna are the same as elsewhere in that region. The only stream of importance is the Chambal, which forms the eastern boundary, and is used as a source of irrigation.

The Sītāmau chief is a Rāthor Rājput belonging to the Jodhpur family, and closely related to the Rājās of Ratlām and Sailānā. The Sītāmau State was founded by Kesho Dās, a grandson of Ratan Singh of Ratlām, who in 1695 received a *sanad* (grant) from Aurangzeb conferring upon him the *parganas* of Titroda, Nāhargarh, and Alot. Of these *parganas*, Nāhargarh and Alot were seized by the chiefs of Gwalior and Dewās respectively, during the Marāthā invasion. On the settlement of Central India, after the Pindāri War, Sir John Malcolm mediated between Daulat Rao Sindhia and Rājā Rāj Singh of Sītāmau, and the latter was confirmed in the possession of his land on paying a yearly tribute to Sindhia of Rs. 33,000, which in 1860 was reduced to Rs. 27,000. For services rendered in the Mutiny of 1857, Rājā Rāj Singh received a *khilat* of Rs. 2,000. In 1865 he ceded all land required for railways free of compensation, and in 1881 relinquished his right to levy transit dues on salt, receiving a sum of Rs. 2,000 annually as compensation. He died without issue, and was succeeded by Bahādur Singh, selected from another branch of the family by the British Government, and installed in 1885. The Gwalior Darbār raised an objection, contending that they should have been consulted, and also claimed succession dues (*nazarāna*). It was ruled, however, that Sītāmau being a mediatized chiefship of the first class, the primary contention was not tenable, while succession dues were payable to the British Government only and not to Gwalior. In 1887 Bahādur Singh abolished all transit dues in his State, except those on opium and timber. He died in 1899 and was succeeded by Shārdul Singh, who only lived ten months. The present chief, Rām Singh, was selected by Government to succeed him in 1900. He is the second son of the Thākur of Kāchhī-Baroda (*see* Bhopāwar Agency), and was born in 1880 and educated at the Daly College at Indore. The ruler bears the titles of His Highness and Rājā, and receives a salute of 11 guns.

The population of the State has been: (1881) 30,939, (1891) 33,307, and (1901) 23,863. In the latest year Hindus numbered 21,406, or 90 per cent. of the total; Musalmāns, 1,517; Jains, 781; and Animists, 159. The density is 68 persons per square mile. The population decreased by 28 per cent. during the decade ending 1901. The State contains one town, Sītāmau (population, 5,877), the capital; and 89 villages. The principal dialect is Rāngrī or Mālwī, spoken by

98 per cent. of the population. The most numerous castes are Brāhmans and Rājputs, each numbering about 4,000. Agriculture supports 48 per cent. of the total, and general labour 12 per cent.

The rich black soil which prevails produces excellent crops of all ordinary grains, and also of poppy grown for opium. Of the total area of 350 square miles, 70, or 20 per cent., are under cultivation, 10 square miles, or 13 per cent. of this area, being irrigated and 60 'dry'; of the remainder, 7 square miles are capable of cultivation, the rest being jungle and irreclaimable waste. Of the cropped area, 61 square miles produce cereals, 7 poppy, and 2 cotton. Irrigation is confined to poppy and vegetables.

Trade and commerce have expanded considerably since the opening of the Rājputāna-Mālwā Railway and the construction of the metalled road between the Mandasor station on that line and the town of Sītāmau, a distance of 18 miles. A British post and telegraph office has been opened at Sītāmau town.

The State is divided for administrative purposes into three *tahsīls*—Sītāmau, Bhagor, and Titroda—each under a *tahsīldār* or *naib-tahsīldār*, who is collector of revenue and magistrate for his charge.

The Rājā has full powers in all revenue, civil judicial, and general administrative matters. In criminal cases he exercises the powers of a Sessions Court in British India, but is required to submit all sentences of death, transportation, or imprisonment for life to the Agent to the Governor-General for confirmation. The British codes, modified to suit local needs, have been introduced into the State courts.

The normal revenue is 1·3 lakhs. Of this, Rs. 80,000 is derived from land, Rs. 31,000 from tribute paid by feudatory Thākurs, and Rs. 13,000 from customs dues. The principal heads of expenditure are: chief's establishment, Rs. 23,000; general administration, Rs. 11,000; public works, Rs. 5,000; police, Rs. 8,000; tribute to the Gwalior State, Rs. 27,000. The income of alienated lands amounts to 1·7 lakhs. The incidence of land revenue demand is Rs. 3 per acre of cultivated land, and 13 annas per acre of the total area. British rupees have been the State currency since 1896.

No troops are kept up by the State. A police force was organized in 1896, and a jail has been opened. Sītāmau town contains one school, with about 200 pupils, and a dispensary.

Sītāmau Town.—Capital of the State of the same name in Central India, situated in 24° 1′ N. and 75° 21′ E., on a small eminence 1,700 feet above sea-level. Sītāmau is 132 miles distant by road from Indore. It is connected with the Mandasor station of the Rājputāna-Mālwā Railway by a metalled road 18 miles in length, and is 486 miles from Bombay. Population (1901), 5,877. The town is surrounded by a wall with seven gates, and its foundation is ascribed to a Mīnā chief,

Sātajī (1465). It fell later into the hands of the Gajmālod Bhūmias. These Bhūmias were Songara Rāthors, who came into Mālwā and took Sītāmau from its original owners about 1500. About 1650 Mahesh Dās Rāthor, father of Ratan Singh, was journeying from Jhālor to Onkārnāth, and was forced to stop at Sītāmau, owing to his wife's illness. She died here, and he asked the Gajmālod Bhūmias for permission to erect a shrine to her memory, but they refused. He treacherously invited them to a feast, murdered them, and seized Sītāmau. The connexion thus established between this place and the Rāthor clan caused Ratan Singh to get it included in his grant of Ratlām.

Ladūna, situated 3½ miles from Sītāmau, on the edge of a fine tank, was the chief town from 1750 to 1820, Sītāmau being too open to attack by the Marāthās. The town contains a school, a guesthouse, a dispensary, and a British post and telegraph office.

Sītāpur District.—District in the Lucknow Division of the United Provinces, situated between 27° 6′ and 27° 54′ N. and 80° 18′ and 81° 24′ E., with an area of 2,250 square miles. It is bounded on the north by Kherī; on the east by the Kauriāla or Gogra river, which separates it from Bahraich; on the south by Bāra Bankī and Lucknow; and on the west and south-west by the Gumtī, across which lies Hardoī.

Physical aspects.

The eastern portion is a low damp tract, much of which is under water in the rains, but the remaining area is a raised upland of more stable character. Numerous streams intersect the District, flowing generally from north to south, but with a slight inclination to the east. In the lowland or *gānjar* the watercourses are variable, but the channels in the uplands are more stable. The Gumtī and the Kauriāla or Gogra, which form the western and eastern boundaries respectively, are both navigable Most of the upland area is drained by the Kathnā and Sarāyān, which are tributaries of the Gumtī, and the Sarāyān also receives the Betā and Gond. Through the centre of the *gānjar* flows the Chaukā, a branch of the Sārdā, which now brings down little water, as the main stream of the Sārdā is carried by the Dahāwar, a branch separating the north-east corner of the District from Kherī. The Dahāwar and Gogra unite at Mallānpur, but the junction of the Chaukā and Gogra lies beyond the southern border of the District. There are many shallow ponds and natural reservoirs which are full of water during the rains, but gradually dry up during the hot season.

Sītāpur exposes nothing but alluvium, and *kankar* or nodular limestone is the only stony formation found.

The District is well wooded in all parts, though it contains no forests and little jungle, except the sandy stretches near the rivers, which are clothed with tall grass or tamarisk. Mangoes, jack-fruit, and a kind of

damson form the principal groves, while *shīsham* (*Dalbergia Sissoo*) and *tūn* (*Cedrela Toona*) are the chief timber trees. Species of fig, acacia, and bamboos are also common.

The spread of cultivation has reduced the number and variety of the wild animals. No tigers have been shot for the last thirty years, and leopards are very rarely seen. A few wolves, an occasional jungle-cat, and jackals and foxes are the only carnivorous animals. Wild hog have been almost exterminated by the Pāsīs, who eat them. A few *nīlgai* and antelope are still found. The rivers abound in fish, and the larger streams contain crocodiles and the Gangetic porpoise.

Apart from the *gānjar*, which is malarious, the District enjoys a cool and healthy climate. The mean temperature ranges from about 45° in the winter to 95° in the summer. Even in May and June the maximum heat seldom rises to 110°, and frost is common in the winter.

The annual rainfall averages about 38 inches, evenly distributed in all parts of the District. Great fluctuations occur from year to year; in 1877 the total fall was only 20 inches, while in 1894 it was nearly 64 inches.

History.

Little is known of the history of Sītāpur. Legends connect several places with episodes in the Mahābhārata and Rāmāyana. There is the usual tradition of a raid by a general of the martyred Saiyid Sālār. The rise of Rājput power, according to the traditions of the great clans which now hold the District, was somewhat later than in Southern Oudh, and the influx continued till the reign of Aurangzeb. The Rājputs generally found the soil occupied by Pāsīs, whom they crushed or drove away. Under the early Muhammadan kings of Delhi the country was nominally ruled by the governor of Bahraich, but little real authority was exercised. In the fifteenth century the District was included in the new kingdom of Jaunpur. About 1527 Humāyūn occupied Khairābād, then the chief town; but it was not until after the accession of Akbar that the Afghāns were driven out of the neighbourhood. Under Akbar the present District formed part of four *sarkārs*: Khairābād, Bahraich, Oudh, and Lucknow, all situated in the *Sūbah* of Oudh. Khairābād was held for some time by the rebels of Oudh in 1567, but throughout the Mughal period and the rule of the Nawābs and kings of Oudh the District is seldom referred to by the native historians. Early in the nineteenth century it was governed by Hakīm Mahdī Alī Khān, the capable minister of Nasīr-ud-dīn Haidar, and some years later Sleeman noted that it was unusually quiet as far as the great landholders were concerned. At annexation in 1856 Sītāpur was selected as the head-quarters of one District, and Mallānpur as the head-quarters of another, which lay between the Chaukā and Gogra.

Sītāpur figured prominently in the Mutiny of 1857. In that year

three regiments of native infantry and a regiment of military police were quartered in Sītāpur cantonments. The troops rose on the morning of June 3, fired on their officers, many of whom were killed, as were also several military and civil officers with their wives and children in attempting to escape. Ultimately many of the fugitives succeeded in reaching Lucknow, while others obtained the protection of loyal *zamindārs*. On April 13, 1858, Sir Hope Grant inflicted a severe defeat on the rebels near Biswān. Order was completely restored before the end of that year; the courts and offices were reopened, and since then nothing has occurred to disturb the peace.

The District contains a number of ancient mounds which still await examination. A copperplate grant of Gobind Chand of Kanauj was discovered in 1885, but few objects of interest have been obtained here. There are some Muhammadan buildings at BISWĀN and KHAIRĀBĀD, and Nimkhār is a famous place of pilgrimage.

Population.

Sītāpur contains 9 towns and 2,302 villages. Population is rising steadily. At the four enumerations the numbers were: (1872) 932,959, (1881) 958,251, (1891) 1,075,413, and (1901) 1,175,473. There are four *tahsīls*—SĪTĀPUR, BISWĀN, SIDHAULĪ, and MISRIKH—each named from its headquarters. The principal towns are the municipalities of SĪTĀPUR, the District head-quarters, and KHAIRĀBĀD. The following table gives the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Sītāpur	570	3	608	311,264	546	+ 6.9	10,302
Biswān	565	1	501	297,277	526	+ 9.3	46,12
Sidhaulī	502	2	544	299,492	597	+ 11.3	5,727
Misrikh	613	3	649	267,440	436	+ 10.0	7,238
District total	2,250	9	2,302	1,175,473	522	+ 9.3	29,391

About 85 per cent. of the total are Hindus and nearly 15 per cent. Musalmāns. The District is thickly populated, and the increase between 1891 and 1901 was remarkably large. Eastern Hindī is spoken by almost the entire population, Awadhī being the ordinary dialect.

The Hindu castes most largely represented are the Chamārs (tanners and cultivators), 159,000; Pāsīs (toddy-drawers and cultivators), 130,000; Brāhmans, 114,000; Ahīrs (graziers and cultivators), 106,000; Kurmīs (agriculturists), 89,000; Lodhas (cultivators), 45,000; Muraos (market-gardeners), 39,000; and Rājputs, 41,000. Among Musalmāns are Julāhās (weavers), 39,000; Shaikhs, 21,000; Pathāns, 16,000; and Behnās (cotton-carders), 14,000. Agriculture supports 75 per cent. of

the total population, and general labour 5 per cent. Rājputs and Musalmāns hold most of the land, their estates being often of considerable size. Brāhmans, Kurmīs, Ahīrs, Chamārs, and Pāsīs are the chief cultivators.

There were 548 native Christians in 1901, of whom 525 were Methodists. The American Methodist Mission was opened in 1864.

Agriculture.

Sītāpur, though naturally very fertile, is still backward compared with Southern Oudh. Holdings are large, rents are to a considerable extent paid in kind, and high-caste cultivators, who do not labour with their own hands, are numerous. Along the Gumtī is found a tract of light soil which is inferior; but east of this the centre of the District is composed of a good loam, stiffening into clay in the hollows. The sandy soil produces *bājra* and barley, while in the richer loam sugar-cane, wheat, and maize are grown. In the lowlands west of the Chaukā rice is largely grown, as the floods are usually not too severe to injure the crop. Between the Chaukā and the Gogra, however, the autumn crop is very precarious, and during the rains the *gānjar*, or lowland, is swept by violent torrents. In this tract even the spring cultivation is poor.

The land tenures are those commonly found in Oudh. About 48 per cent. of the whole area is held by *talukdārs*, and sub-settlement holders have only a small share in this. Single *zamīndārs* hold 11 per cent., and joint *zamīndārs* and *pattīdārs* the rest. The main agricultural statistics for 1903-4 are given below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Sītāpur	570	415	88	62
Biswān	565	416	36	45
Sidhauli	502	362	98	51
Misrikh	613	432	94	94
Total	2,250	1,625	316	252

Wheat is the most important crop, covering 416 square miles, or a fourth of the net cultivated area. Pulses (294), rice (250), gram (240), *kodon* and small millets (210), barley (208), and maize are also largely grown. Of non-food crops the chief are poppy (27), sugar-cane (43), and oilseeds (41).

There has been a very considerable increase in the area under cultivation during the last forty years, amounting to about 35 per cent., and waste land is still being broken up as new tenants are obtained. In addition to this the area bearing a double crop has trebled. Improvements in the methods of agriculture and the introduction of better staples are noticeable, but are not proceeding very rapidly. In the autumn, rice is taking the place of the inferior small millets; but

the variety grown is that which ripens early, not the more valuable late rice. Wheat is being cultivated more largely than barley; and the area under tobacco, poppy, and garden crops is rising. There is a steady demand for advances under the Land Improvement and Agriculturists' Loans Acts; a total of 3·1 lakhs was lent during the ten years ending 1900, out of which, however, 1·2 lakhs was advanced in the famine year, 1896–7. The loans in the next four years averaged Rs. 5,300. An agricultural bank of some importance has been founded by the Khattrī *talukdār* of Muizzuddīnpur.

Although no particular breeds are distinguished, the cattle of the District are superior to those of Southern Oudh. Animals of good quality are regularly imported and prevent deterioration, though the absence of care in mating is as marked here as elsewhere. The *gānjar* provides excellent pasture. Ponies are largely used as pack-animals, though they are of an inferior type. The District board maintained a stallion from 1894 to 1896, but the experiment was not a success. Sheep are comparatively scarce, while goats are kept in large numbers for milk, for penning on land, and for their hair.

In 1903–4, 316 square miles were irrigated, *jhīls* and tanks supplying 192 square miles, wells 113, and other sources 11. Facilities are lacking in the sandy tract adjoining the Gumtī, while irrigation is seldom required in the eastern lowlands. Even in the central loam tract permanent sources of water-supply are rare; and the District is thus badly protected in seasons of drought, as the *jhīls*, which are the most important source of supply, fail when they are most needed. There has, however, been some increase in the number of wells, especially since the famine of 1896. Temporary wells can be made in most parts when necessary, except in the sandy tract. The wells are worked to a large extent by hand labour, a number of men combining to draw water in a large leathern bucket. In the east, where the spring-level is higher, the lever is used. Irrigation from tanks is carried on by means of the swing-basket. Small streams are used in a few places to supply water, their channels being dammed as required.

Kankar or calcareous limestone is found in block and in nodular form. It is used for making lime and for metalling roads, and was formerly employed as a building stone.

Few manufactures are carried on, and these are chiefly confined to the preparation of articles in common use for the local market. Cotton cloth is woven in several places, and cotton prints are also made. The District produces some fine specimens of wood-carving, and a little art pottery is made at Biswān.

Trade and communications.

Sītāpur exports grain, oilseeds, raw sugar, and opium, and imports piece-goods, yarn, metals, and salt. The export trade has expanded

largely since the opening of the railway, and also received an impetus from the famine of 1896, when a surplus was available. The town of Sītāpur is the chief trading centre, and substantial bazars are springing up at other places along the railway. Towns at a distance from the line, especially those which are not situated on metalled roads, are declining in importance. Important fairs are held at Nimkhār and Khairābād.

The Lucknow-Bareilly metre-gauge State Railway (worked by the Rohilkhand and Kumaun Railway) passes through the centre of the District from south to north. A branch of the Bengal and North-Western Railway from Burhwal in Bāra Bankī to Sītāpur town has been projected. Communications are fairly good, especially in the upland area. In the *gānjar* the floods during the rains make boats the only means of communication. There are 576 miles of roads, of which 134 are metalled. The latter are in charge of the Public Works department, but the cost of all but 56 miles is met from Local funds. Sītāpur town is the centre of the principal routes, which radiate to Lucknow, Shāhjahānpur, and other places. Avenues of trees are maintained on 229 miles.

Famine.

Disastrous floods sometimes cause distress in the east of the District, but the defective means of irrigation render the greater part of it more subject to drought. The great famine of 1783-4 was long remembered; and in 1837, 1860, and 1869 scarcity was experienced. In 1877 the rains failed, and relief works were opened, while large numbers were fed in poorhouses. The excessive rainfall of 1894 caused much damage to the crops, and test relief works were opened early in 1895. In that year the rains ceased early, and in 1896 they failed to a still greater extent, and severe famine followed, which lasted till August, 1897. Numerous relief works were opened, advances were made for the construction of wells, revenue was suspended to the extent of 3 lakhs, and Rs. 67,000 was ultimately remitted. Much of the distress was, however, due to the inrush of paupers from areas worse affected, and the District recovered rapidly.

Administration.

The Deputy-Commissioner usually has a staff of four Assistants, one of whom is a member of the Indian Civil Service, while the other three are Deputy-Collectors recruited in India. A *tahsīldār* is stationed at the head-quarters of each *tahsīl*, and there are two officers of the Opium department.

Civil work is in the hands of two Munsifs, a Subordinate Judge, and an Assistant Judge. The District of Kherī is included in the jurisdiction of the Civil and Sessions Judge of Sītāpur. Crimes of violence are common, and dacoities are frequent, though they are usually not of a professional type. Burglary and theft are, however, the commonest offences, and Pāsīs are responsible for a large share of the crime.

After the restoration of order in 1858 the District was formed in its present shape. No details have been preserved of the first summary settlement in 1856, which set aside the rights of the *talukdārs* to a large extent. At the summary settlement which followed the Mutiny the *talukdārs* were restored, and the demand fixed on the basis of the accounts under native rule was 9·4 lakhs. The first survey and regular settlement were carried out between 1862 and 1872 by various officers who employed different methods. The work was rendered difficult by the fact that in an unusually large area the rents were paid in kind and not in cash. Attempts were made to frame standard rates; but these failed at first by not making sufficient allowance for local variations, and considerable modifications were necessary. Where cash-rents were found, they were used to estimate the value of grain-rented land, and estimates of produce were also made. The result was an assessment of 13 lakhs. As in the rest of Oudh, the Settlement officer sat as a civil court to determine claims to rights in land, but the work was on the whole lighter than in the southern Districts. The next revision was carried out between 1893 and 1897. There was no resurvey or formal revision of records, and the cost was extremely small. Rents in kind were still prevalent, only about 40 per cent. of the area assessed being held on cash rents. The latter were also found in many cases to be insecure, having been frequently fixed at excessively high rates, while in other cases they were special rates for particular crops. The valuation of the grain-rented land was thus extremely difficult; but in some localities the record of the produce of this land was found to be fairly accurate, while the accounts of estates managed by the Court of Wards and those of some private landholders were also available. The result was an assessment of 15·4 lakhs, excluding villages liable to diluvion. This demand represented 46 per cent. of the assumed rental 'assets,' and an incidence of Rs. 1·3 per acre, varying from R. 0·8 to Rs. 1·8 in different *parganas*.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	13,35	13,00	14,98	16,06
Total revenue . .	15,92	17,25	21,44	23,69

There are two municipalities, SĪTĀPUR and KHAIRĀBĀD, and six towns are administered under Act XX of 1856. Local affairs elsewhere are managed by the District board, which had an income of 1·3 lakhs in 1903-4, chiefly derived from rates. The expenditure in the same year was 1·4 lakhs, including Rs. 60,000 spent on roads and buildings.

The District Superintendent of police has a force of 3 inspectors,

101 subordinate officers, and 358 men distributed in 11 police stations, besides 116 municipal and town police, and 2,467 rural and road police. The District jail contained a daily average of 378 prisoners in 1903.

Sītāpur takes a low place in regard to the literacy of its inhabitants, of whom only 2·5 per cent. (4·6 males and 0·2 females) could read and write in 1901. The number of public schools increased from 145 with 5,481 pupils in 1880–1 to 169 with 6,463 pupils in 1900–1. In 1903–4 there were 215 such schools with 9,009 pupils, of whom 401 were girls, besides 19 private schools with 232 pupils. About 1,300 pupils had advanced beyond the primary stage. Five schools are managed by Government and 188 by the District and municipal boards. The total expenditure on education was Rs. 53,000, of which Rs. 41,000 was provided from Local funds, and Rs. 8,000 by fees.

There are 11 hospitals and dispensaries, with accommodation for 185 in-patients. In 1903 the number of cases treated was 103,000, including 2,571 in-patients, and 3,950 operations were performed. The expenditure amounted to Rs. 16,000, chiefly met from Local funds.

About 78,000 persons were successfully vaccinated in 1903–4, representing the very high proportion of 66 per 1,000 of population. Vaccination is compulsory only in the municipalities.

[S. H. Butler, *Settlement Report* (1899); H. R. Nevill, *District Gazetteer* (1905).]

Sītāpur Tahsīl.—Head-quarters *tahsīl* of Sītāpur District, United Provinces, comprising the *parganas* of Pīrnagar, Khairābād, Rāmkot, Sītāpur, Lāharpur, and Hargām, and lying between 27° 19′ and 27° 51′ N. and 80° 32′ and 81° 1′ E., with an area of 570 square miles. Population increased from 291,190 in 1891 to 311,264 in 1901. There are 608 villages and three towns—SĪTĀPUR (population, 22,557), the District and *tahsīl* head-quarters, KHAIRĀBĀD (13,774), and LĀHARPUR (10,997). The demand for land revenue in 1903–4 was Rs. 3,91,000, and for cesses Rs. 64,000. The density of population, 546 persons per square mile, is above the District average. The *tahsīl* lies chiefly in the central upland portion of the District, but a strip on the north-east extends into the damper low-lying tract. The Sarāyān is the principal river, crossing the western part, while its tributary, the Gond, rises in the centre. The lowlands are drained by the Kewānī and a small tributary called the Ghāgrā. In 1903–4 the area under cultivation was 415 square miles, of which 88 were irrigated. Tanks and *jhīls* supply four-sevenths of the irrigated area, and wells most of the remainder.

Sītāpur Town.—Head-quarters of the District of the same name, and cantonment, in the United Provinces, situated in 27° 34′ N. and 80° 40′ E., on the Lucknow-Bareilly State Railway, and on metalled roads from Lucknow and Shāhjahānpur. Population (1901), 22,557, of

whom 3,603 reside in cantonments. At annexation in 1856 the town was a small place, and its growth has been rapid. The town and station are prettily situated and well laid out. Besides the usual offices, it contains male and female hospitals, and a branch of the American Methodist Mission. Sītāpur has been a municipality since 1868. During the ten years ending 1901 the income and expenditure averaged Rs. 32,500 and Rs. 30,500, respectively. In 1903–4 the income was Rs. 38,000, chiefly derived from octroi (Rs. 16,500) and rents and market dues (Rs. 13,000); and the expenditure was Rs. 53,000. This is the chief commercial centre in the District, with a large export trade in grain, the principal market being called Thompsonganj, after a former Deputy-Commissioner. There are five schools, attended by about 500 pupils. The cantonment is garrisoned by a portion of a British regiment. During the ten years ending 1901 the income and expenditure of cantonment funds averaged Rs. 12,000. In 1903–4 the income was Rs. 14,000, and the expenditure Rs. 17,000.

Sītpur.—Village in the Alīpur *tahsīl* of Muzaffargarh District, Punjab, situated in 29° 14′ N. and 70° 51′ E., 3 miles from the Chenāb, and 11 miles south of Alīpur town. It is the only place of any antiquity in the District, and in the fifteenth century became the capital of the Nāhar dynasty, a representative of whom receives a small allowance for looking after the family tombs. Sītpur was formerly on the west bank of the Indus, but a change in the course has transferred it to the east bank. In the eighteenth century the Nāhars were expelled from Sītpur by Shaikh Rāju Makhdūm, from whom it was taken by Bahāwal Khān II of Bahāwalpur. It came into the possession of the Sikhs in 1820. The town, which is completely enclosed by a thick screen of date-palms, is very irregularly built, and has a dilapidated appearance. The only building of importance is the tomb of Tāhar Khān Nāhar, decorated with encaustic tiles. Sītpur formerly possessed a considerable manufacture of paper, but the industry is practically extinct. A certain amount of *kamāngari* work—painting over varnished wood or paper—is applied to bows, saddles, paper shields, and toys.

Sittang (or Paunglaung).—River of Burma, flowing midway between the valleys of the Irrawaddy and the Salween. It is separated from the former by the Pegu Yoma, and from the latter by the Paunglaung range of hills; and it follows, like both these streams, a southerly course. It rises east of Yamethin District at about 20° N. latitude, and is fed by affluents from the Yoma on the west, and from the Karen Hills and the Paunglaung range on the east. It winds through Toungoo District, and between Pegu and Thaton, and spreads out almost imperceptibly, after a course of about 350 miles, into the northern apex of the Gulf of Martaban, at a point equidistant from the ports of Rangoon and Moulmein. Its trend is more or less parallel to that of the

Rangoon-Mandalay Railway, the oldest section of which (Rangoon to Toungoo) was originally known as the Sittang Valley line. Of the towns on its banks the two most important are Toungoo, the head-quarters of the District of that name, and Shwegyin, a municipality, formerly the head-quarters of what was known as the Shwegyin District. At Myitkyo, a village on its lower reaches, the Sittang is connected by the PEGU-SITTANG CANAL with the PEGU RIVER on the west; and farther south again, at Mopalin, the SITTANG-KYAIKTO CANAL unites it with Kyaikto and other portions of Thaton District in the south-east. Both these canals are primarily intended for navigation. There are no regular irrigation works connected with the Sittang. The river has not yet been bridged, but bridges are in course of construction at Toungoo and at the point where the railway to Moulmein crosses it. The river has long been remarkable for the bore or tidal wave which sweeps up its mouth from time to time and occasionally does considerable damage.

Sittang-Kyaikto Canal.—A navigable canal in Thaton District, Lower Burma, 13 miles in length, running north-west and south-east and connecting Wimpadaw on the SITTANG river with Kyaikto, a sub-divisional and township head-quarters in the west of Thaton District. The canal was commenced in 1882–3, and was opened to traffic towards the close of 1893, having cost about 10 lakhs. In 1894 the lock at Wimpadaw collapsed, and a new lock was built at Mopalin on the Sittang in 1897. There is also a lock at Kyaikto. An attempt was made to extend the canal eastwards, with a view of carrying it on to Moulmein, but the erosion of the sea-coast in the neighbourhood caused the project to be abandoned.

Sittwe.—Arakanese name of the AKYAB DISTRICT and TOWN, Burma.

Sivaganga Estate.—A permanently settled *zamīndāri* estate in the Rāmnād subdivision of Madura District, Madras, lying between 9° 30′ and 10° 17′ N. and 78° 5′ and 78° 58′ E., with an area of 1,680 square miles. Population (1901), 394,206. The *peshkash* payable by the *zamīndār* to Government (including cesses) amounts to 3 lakhs. Formerly the estate was part of the neighbouring *zamīndāri* of RĀMNĀD, the territory of the chief called Setupati, or 'lord of the causeway' leading to the sacred temple of RĀMESWARAM; but about 1730 one of these Setupatis was forced to surrender two-fifths of his possessions to the *poligār* of Nālkottai, who thenceforth became independent and was known as the Lesser Maravan, Maravan being the caste to which both he and the Setupati belonged. During the latter part of the eighteenth century the rulers of Sivaganga were involved in the struggles of greater powers. In 1773 the country was reduced by the British, the Rājā was killed at Kāliyārkovil, and his widow was forced to flee to Dindigul, where she remained under the protection of Haidar

Alī. Later, she was restored to the *zamīndāri*, and in 1803 the permanent settlement was made with one Udaya Tevan of the family. The subsequent history of the estate has been a tale of mismanagement and litigation, one of the succession suits having lasted a very long time and cost a great deal of money. At present its resources are being developed by European lessees who, in consideration of having paid off the last *zamīndār's* debts and made him an allowance for life, obtained a lease of the entire estate for a term of thirty years. The present *zamīndār* is a minor under the Court of Wards.

Sivaganga Tahsil.—*Zamīndāri tahsīl* in the Rāmnād subdivision of Madura District, Madras, which, together with the Tiruppattūr and Tiruppuvanam *tahsīls*, makes up the SIVAGANGA ESTATE. The population in 1901 was 155,909, compared with 146,549 in 1891. The *tahsīl* contains one town, SIVAGANGA (population, 9,097), the head-quarters of its deputy-*tahsīldār*; and 520 villages. It is an unbroken level plain, mainly of red soil, and is fairly fertile. The crops are irrigated chiefly from the VAIGAI and from river-fed tanks.

Sivaganga Town.—Head-quarters of the *tahsīl* and *zamīndāri* of the same name in Madura District, Madras, situated in 9° 51′ N. and 78° 30′ E., about 10 miles from Mānāmadurai station on the South Indian Railway. Population (1901), 9,097. It is a Union and the head-quarters of a deputy-*tahsīldār*. Brass fancy articles, especially excellent figures of lizards, scorpions, and the like, are manufactured. The town is a pleasant place, and in its fertile red soil grow most of the trees and plants of the eastern coast. It contains the palace of the *zamīndārs* of Sivaganga, and is the head-quarters of the European lessees who now have possession of their estate.

Sivaganga Hill.—A sacred hill with a conical peak, 4,559 feet high, in the north-west of Bangalore District, Mysore, situated in 13° 11′ N. and 77° 14′ E. Its Purānic name is Kakudgiri. This was one of the points to which the new Lingāyat faith spread early in the twelfth century. The north face is covered with sacred buildings. The two finest temples, those of Gangādharesvara and Honna-Devamma, are formed out of large natural caverns, and the Pātāla Ganga is the principal of eight sacred pools on the hill. At the summit are two pillars, from beneath one of which about a quart of water oozes on the day of the winter solstice, half of which is devoted to the god, and half sent to the palace at Mysore. The village of Sivaganga, where the *gurū* resides, is at the northern base.

Sivagiri Estate.—A *zamīndāri* situated mainly in the north-west of the Sankaranayinārkovil *tāluk* of Tinnevelly District, Madras, with an area of nearly 125 square miles, excluding 30 square miles of forest on the slopes of the Western Ghāts. Population (1901), about 58,000. It is one of the ancient estates of the Presidency, and pays a *peshkash*

of Rs. 55,000 and land cess amounting to Rs. 5,000. About 50,000 acres are under cultivation, of which a little over a fourth is 'wet,' the remainder being 'dry.' The income of the estate is about Rs. 1,84,000, and at present, owing to the minority of the proprietor, it is managed by the Court of Wards. SIVAGIRI is the only town of importance.

Sivagiri Town.—Chief town of the *zamīndāri* of the same name in the Sankaranayinārkovil *tāluk* of Tinnevelly District, Madras, situated in 9° 20′ N. and 77° 26′ E. It is a Union, with a population (1901) of 18,150.

Sivakāsi.—Town in the Sāttūr *tāluk* of Tinnevelly District, Madras, situated in 9° 27′ N. and 17° 48′ E., 12 miles from Sāttūr, and midway between that town and Srīvilliputtūr. It is a Union, with a population (1901) of 13,021. Many of the Shānān merchants are well-to-do, their trade being chiefly in tobacco, cotton, and jaggery (coarse sugar). Sivakāsi was the scene of the outbreak of the disturbances of 1899, which arose out of a dispute as to the right of the Shānāns to enter the local temple. Several lives were lost in these riots, and a punitive police force of 100 men under a special Assistant Superintendent is now stationed in the town.

Sivasamudram ('Sea of Siva').—An island in the Cauvery river, in the Kollegāl *tāluk* of Coimbatore District, Madras, situated in 12° 16′ N. and 77° 13′ E. It has given its name to the famous Falls of the CAUVERY, which lie on either side of it and which are described in the account of the river. The stream on both sides is very rapid and is fordable in only one place, and that with difficulty, even in the hot season. The island is thus a place of great natural strength, and was consequently in ancient days the site of a considerable town. Tradition ascribes the original foundation to a petty king from Malabar in the sixteenth century. His son and grandson held it after him, and it was then deserted for some years until reoccupied by a Mysore chieftain called Ganga Rāya. Some picturesque stories were gleaned about him and his successors by Buchanan[1] when he visited the place in 1800. They seem to have greatly extended the fortifications, remains of three lines of which still exist, to have built the temples and palaces with the ruins of which the island is strewn, and to have bridged the two arms of the river which surround it. The place remained in their family for only three generations, and they were then forcibly dispossessed by another local chieftain. The town shortly afterwards fell into ruins. In 1800 it was inhabited only by two Muhammadan hermits, other people being afraid of the demons and tigers which were declared to haunt it. In 1818 it was granted to a native gentleman named Rāmaswāmi Mudaliyār, who cleared away the jungle with which it had become overgrown and rebuilt the old bridges leading to it.

[1] *Mysore, Canara, and Malabar*, vol. i, p. 406 ff. (Madras reprint, 1870).

Two temples, which are elaborately sculptured and contain inscriptions, still stand on the island. There is also the tomb of Pīr Walī, a Muhammadan saint, which is much reverenced by Musalmāns and is the scene of a large annual festival.

Siwālik Hills ('Belonging to Siva').—A range of hills in Northern India, running parallel to the Himālayas for about 200 miles from the Beās to the Ganges; a similar formation east of the Ganges separates the Pātlī, Patkot, and Kotah Dūns (valleys) from the outer range of the Himālayas as far as Kālādhūngī, where it merges into them, and is believed to reappear still farther east in Nepāl. In the United Provinces the Siwāliks lie between the Jumna and Ganges, separating Sahāranpur District from Dehra Dūn, while in the Punjab they cross the Sirmūr (Nāhan) State and Ambāla and Hoshiārpur Districts. This part of the range is irregular and pierced by several rivers, of which the Ghaggar on the west is the largest. West of the Ghaggar the hills run like a wall, separating Ambāla from the long narrow valley of the Sirsa river in Nālāgarh State, until they are cut through by the Sutlej at Rūpar. Thence the range runs with a more northerly trend through Hoshiārpur, where it terminates near the Beās valley in a mass of undulating hills. Beyond the Sutlej there is merely a broad table-land, at first enclosed by sandy hillocks, but finally spreading into minor spurs. The southern face, in the United Provinces, rises abruptly from the plains and is scored by the bare stony beds of the watercourses which rush down in the rains. On the northern side is a more gentle descent into the elevated valley of Dehra Dūn, which separates this range from the Himālayas. The greatest height does not exceed 3,500 feet, and the range is about ten miles broad. A road from Sahāranpur to Dehra crosses these hills by the Mohan pass, but has lost its importance since railway communication was opened through the eastern termination near the Ganges. Geologically, the Siwāliks are separated from the Outer Himālayas by a continuous reversed fault. They contain Tertiary strata consisting of fresh-water deposits, celebrated for the fossil remains found in them and described by Falconer and Cautley. The lower hills are thickly clothed with *sāl* (*Shorea robusta*) and *sain* (*Terminalia tomentosa*), while on the higher peaks a cooler climate allows pines to flourish. Wild elephants are found, and also tigers, sloth bears, leopards, hyenas, various kinds of deer, and hog. The term Siwālik has been applied by Muhammadan writers to the area lying south of the hills as far as Hānsi, and also to the Himālayas.

[Falconer and Cautley, *Fauna Antiqua Sivalensis* (London, 1846–9–66).]

Siwān Subdivision.—Central subdivision of Sāran District, Bengal, lying between 25° 56′ and 26° 22′ N. and 84° 0′ and

84° 47′ E., with an area of 838 square miles. The subdivision is an alluvial tract, intersected by numerous rivers and water-channels. The population in 1901 was 801,744, compared with 800,738 in 1891. This is the most densely populated part of the District, supporting 957 persons per square mile. It contains one town, SIWĀN (population, 15,756), the head-quarters; and 1,528 villages.

Siwān Town (or Alīganj Sewān).—Head-quarters of the subdivision of the same name in Sāran District, Bengal, situated in 26° 13′ N. and 84° 21′ E. Population (1901), 15,756. Superior pottery is manufactured here, and the town is noted for its brass-ware. Siwān was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 9,600, and the expenditure Rs. 8,500. In 1903–4 the income was Rs. 11,000, mainly derived from a tax on persons (or property tax); and the expenditure amounted to the same sum. The town contains the usual public offices; the sub-jail has accommodation for 32 prisoners.

Siwrae.—Ancient site in Bahāwalpur State, Punjab. *See* SARWĀHĪ.

Siyānā.—Town in the District and *tahsīl* of Bulandshahr, United Provinces, situated in 28° 37′ N. and 78° 4′ E., 19 miles north-east of Bulandshahr town. It is being connected by a metalled road with Bulandshahr and Garhmuktesar. Population (1901), 7,615. The name is said to be a corruption of Sainban or 'the forest of rest,' because Balarāma, brother of Krishna, on his way from Muttra to Hastināpur, slept here one night, and was hospitably entertained by *fakīrs*, who had excavated a tank in the centre of a vast forest. The town gave its name to a *mahāl* or *pargana* recorded in the *Āin-i-Akbarī*. After the British conquest it was the head-quarters of a *tahsīldār* and Munsif up to 1844. It is now of small importance, but has been improved lately, and the mud huts are being replaced with brick houses. It is administered under Act XX of 1856, with an income of about Rs. 1,800. There was formerly some trade in safflower, but it is declining. Indigo is still made in a small factory. A middle school with a boarding-house is attended by about 160 pupils.

Skinner Estates.—A group of estates held by the descendants of Lieutenant-Colonel James Skinner, C.B., in the Districts of Hissār, Delhi, and Karnāl, Punjab. The area of the estates is 251 square miles in Hissār, 2·6 in Delhi, and 21·4 in Karnāl; and the total revenue of the estates in Hissār is Rs. 62,683. James Skinner, the son of a Scottish officer in the East India Company's service and a Rājput lady, was born in 1778 and received his first commission from De Boigne, the famous Savoyard adventurer, who had organized Sindhia's brigades. After many years' service under the Marāthās, during which he was employed against the adventurer George Thomas, Skinner joined the British forces under Lord Lake in 1803, and

received the command of 2,000 of Perron's Hindustāni Horse, who came over to the British after the battle of Delhi. This body served with great distinction under Skinner for thirty years, and is now represented by the 1st Lancers and 3rd Cavalry (Skinner's Horse) of the Indian Army. Rising to be a Lieutenant-Colonel in the British service, Skinner obtained large grants of land in the Delhi territory, and settled at Hānsi in Hissār District, where he died in 1841. He built St. James's Church at Delhi in fulfilment of a vow. Major Robert Skinner, his younger brother, also served under Perron and eventually entered the Company's service.

Soālkuchi.—Village in the Gauhāti subdivision of Kāmrūp District, Eastern Bengal and Assam, situated in 26° 11′ N. and 91° 37′ E., on the north bank of the Brahmaputra, about 15 miles west of Gauhāti town. It is a port of call for the river steamers and an important trading centre, the principal articles of export being silk cloths, jute, and mustard. Unlike most of the Assamese, the people of Soālkuchi have a keen commercial instinct, and act as middlemen and carriers in the mustard trade. The principal commercial castes are the Shau or Shāhā, the Dhobi, and the Tānti. The local products include boats and *mūgā* silk.

Sobraon.—Village in the Kasūr *tahsīl* of Lahore District, Punjab, situated in 31° 11′ N. and 74° 52′ E., on the crest of the high bank overlooking the Sutlej lowlands, near the south-east corner of the District. Population (1901), 4,701. Opposite this village, on the east bank of the river, in Ferozepore District, lies the famous battlefield where Sir Hugh Gough gained his decisive victory of February 10, 1846, which brought to a close the first Sikh War, and led to the occupation of Lahore by a British force. The Sikhs had taken up a strong position on the east side of the Sutlej, protecting the Harīke ford, while their rear rested upon the village of Sobraon. The battle took place on the Ferozepore side, where the Sikhs gallantly held their earthworks until almost their last man had fallen. Comparatively few made their way back across the river. This battle immediately cleared the whole left bank of the Sutlej of Sikh troops, and the victorious army crossed into the Punjab by a bridge of boats opposite Ferozepore and took possession of Lahore.

Sodhra (*Sohdra*).—Town in the Wazīrābād *tahsīl* of Gujrānwāla District, Punjab, situated in 32° 29′ N. and 74° 14′ E., on the left bank of the Chenāb, 5 miles east of Wazīrābād on the North-Western Railway. Population (1901), 5,050. Sodhra, which is administered as a 'notified area,' is a place of some antiquity, and had given its name to the Chenāb, or to that part of it which lies in the plains, prior to the invasion of Mahmūd of Ghazni. The river then flowed close under the town on the north, but is now over a mile away.

Sofāle (*Safāle*).—Village in the Māhīm *tāluka* of Thāna District, Bombay, situated in 19° 34′ N. and 72° 50′ E., on the Bombay, Baroda, and Central India Railway, 8 miles south-east of Māhīm town. Population (1901), 769. The fact that Abul Fida (1320) mentions a Sefareh in India and a Sefareh in Africa as ports of inter-communication seems to show that Sofāle was the Konkan terminus of the trade with the African coast that probably reached back to prehistoric times.

Sohāgpur Tahsīl (1).—Southernmost *tahsīl* of the Rewah State, Central India, lying between 22° 38′ and 23° 36′ N. and 80° 45′ and 82° 18′ E., with an area of 3,535 square miles. The *tahsīl* lies in the hilly tract and possesses little soil of agricultural value. The forests are considerable, and the sale of lac and timber yields about 3 lakhs a year, *salai* (*Boswellia serrata*) being the prevailing tree. The most important product is, however, coal obtained from the UMARIĀ mine. The population was 311,000 in 1891 and 241,345 in 1901, giving the low density of 68 persons per square mile. The predominant race in the *tahsīl* are the Gonds, to whom the country belonged when the Baghels obtained possession. The *tahsīl* contains one town, UMARIĀ (population, 5,381), and 1,190 villages, the head-quarters being at SOHĀGPUR. The land revenue is Rs. 27,000.

Sohāgpur Village.—Head-quarters of the *tahsīl* of the same name in the Rewah State, Central India, situated in 23° 19′ N. and 81° 24′ E., 2 miles from Sahdol station on the Katnī-Bilāspur section of the Bengal-Nāgpur Railway. Population (1901), 2,126. It is a place of some commercial importance. The chief exports are wheat, rice, mustard, and linseed. Salt, jaggery, sugar, tobacco, cotton, cloth, yarn, and kerosene oil are imported. The value of the exports is about 8 lakhs a year, and that of the imports 4 lakhs. Almost in the centre stands a large palace, a heterogeneous mass of buildings surrounding a large courtyard. It is constructed partly of brick and partly of stone, the latter being almost entirely taken from older structures, while the numerous pillars employed have all been taken from temples, and differ in ornamentation and appearance. Among these remains are many Jain sculptures. One mile south-east of the present village are the ruins of an older settlement, full of old remains. One temple in a moderate state of preservation resembles those at KHAJRĀHO in style, and probably dates from the twelfth century. A figure of Ganesh is cut over the door of the sanctuary, which is profusely ornamented with carving. The spire is graceful and of curvilinear form, not unlike those at Khajrāho. The sculpture is fine, but in many cases grossly obscene.

Sohāgpur Tahsīl (2).—Eastern *tahsīl* of Hoshangābād District, Central Provinces, lying between 22° 10′ and 22° 59′ N. and 77° 55′

and 78° 44′ E., with an area of 1,243 square miles. The population in 1901 was 125,863, compared with 139,936 in 1891. The density is 101 persons per square mile. The *tahsīl* contains two towns, SOHĀGPUR (population, 7,420), the head-quarters, and PACHMARHĪ (3,020); and 429 inhabited villages. Excluding 433 square miles of Government forest, 61 per cent. of the available area is occupied for cultivation. The cultivated area in 1903–4 was 397 square miles. The demand for land revenue in the same year was Rs. 1,61,000, and for cesses Rs. 15,000. The northern portion of the *tahsīl* is an open black-soil plain, much scoured by the action of the numerous streams flowing down to the Narbadā. A low range of hills separates the valley of the Narbadā from that of the Denwā, and south of this again rise the masses of the Sātpurā Hills, culminating to the east in the Pachmarhī plateau. Sohāgpur is the poorest and least fertile *tahsīl* in the District. It contains two *jāgirdāri* estates and part of a third.

Sohāgpur Town.—Head-quarters of the *tahsīl* of the same name, Hoshangābād District, Central Provinces, situated in 22° 42′ N. and 78° 12′ E., on the Great Indian Peninsula Railway, 494 miles from Bombay. Population (1901), 7,420. Sohāgpur was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 10,200. In 1903–4 they were Rs. 12,000, of which three-fourths was derived from octroi. A considerable export trade in grain and timber takes place from Sohāgpur; and a large proportion of the population are engaged in cotton-weaving and dyeing. The water of the river Palakmāti, on which the town stands, is considered to be especially valuable in dyeing operations. About 40 betel-vine gardens are cultivated in the vicinity of the town, and the leaf is exported to other Districts. Sohāgpur possesses an English middle school and a dispensary.

Sohāwal.—A small *sanad* State in Central India, under the Political Agent in Baghelkhand, lying between 24° 33′ and 24° 50′ N. and 80° 35′ and 80° 49′ E., with an area of about 213 square miles. It is separated into two sections by the petty State of Kothī, the northern section itself being also much intermingled with parts of Pannā. The chief is a Baghel Rājput, connected with the Rewah family. Mahārājā Amar Singh of Rewah had two sons, one of whom, named Fateh Singh, revolted in the sixteenth century, and seizing Sohāwal, founded an independent chiefship, which was originally of considerable extent, including Bīrsinghpur (now in Pannā), Kothī, and other tracts in the neighbourhood. On the rise of Pannā under Chhatarsāl, Sohāwal became tributary, but retained its independence. Later on, however, Jagat Rāj and Hirde Sāh, sons of Chhatarsāl, actually seized much of its territory, while the Kothī chief, taking

advantage of these disturbances, threw off his allegiance, and attacked and killed the Sohāwal chief, Prithīpāl Singh. On the establishment of British supremacy in the beginning of the nineteenth century, Sohāwal was held to be subordinate to Pannā. But a separate *sanad* was granted to Rais Amān Singh in 1809, on the ground that the State had existed before Chhatarsāl's rise to power and had remained independent throughout the supremacy of Alī Bahādur of Bāndā. The present chief, Bhagwant Rāj Bahādur, succeeded in 1899, and in 1901 received the title of Rājā as a personal distinction, the ordinary title being Rais.

The population of the State has been: (1881) 37,747, (1891) 43,853, and (1901) 37,216, giving a density of 175 persons per square mile. The decrease of 15 per cent. during the last decade is due to famine. The State contains 183 villages. Hindus number 31,645, or 85 per cent.; Animists (chiefly Gonds, Kols, and Mavaiyas), 4,574, or 13 per cent.; and Musalmāns, 993. Baghelkhandī is spoken by 80 per cent. and Bundelkhandī by 17 per cent. of the inhabitants. Agriculture supports about 95 per cent. of the total population. The soil of the State is fertile and bears good crops of all the ordinary grains. About 111 square miles, or 52 per cent. of the total area, are cultivated, while 54 square miles, or 25 per cent., are cultivable but not cultivated; the rest is jungle and waste. A peculiar custom, not uncommon in other parts of Baghelkhand, prevails of regularly relinquishing a village site every twelve or sixteen years. The sites are assessed at the rate of Rs. 20 per acre per annum on the abandoned land during the first four years succeeding its abandonment, and at Rs. 12 in succeeding years.

For administrative purposes the State is divided into two *tahsīls*, with head-quarters at Sohāwal and Sabhāpur, and the estate of Raigaon, which is held in *jāgīr* by a junior branch of the Sohāwal family, the present holder being Lāl Raghubansman Prasād Singh, fifth in descent from Lāl Sarabjīt (Sarūp) Singh, who received it as a service *jāgīr* from his elder brother, Rais Mahipat Singh. The Sohāwal chief exercises limited powers. All ordinary administrative matters are in his hands, but cases of serious crime are dealt with by the Political Agent. The revenue is Rs. 46,000, and the cost of administration about Rs. 34,000.

The capital, Sohāwal, is situated in 24° 35′ N. and 80° 46′ E., on the left bank of the Satnā river, and on the Satnā-Nowgong high road, 5 miles from Satnā station on the East Indian Railway. Population (1901), 2,108.

Sohdra.—Town in the Wazīrābād *tahsīl* of Gujrānwāla District, Punjab. *See* SODHRA.

Sohiong.—Petty State in the Khāsi Hills, Eastern Bengal and

Assam. The population in 1901 was 2,014, and the gross revenue in 1903-4 was Rs. 600. The principal products are millet, rice, and potatoes.

Sohna (*Sonāh*).—Town in the District and *tahsīl* of Gurgaon, Punjab, situated in 28° 15′ N. and 77° 5′ E., 15 miles south of Gurgaon town. Population (1901), 6,024. It is of no commercial importance, but claims considerable antiquity. It has been occupied in succession by the Kambohs, the Khānzādās, and the Rājputs; and traces of all three settlements are found in the extensive ruins which surround it. Sohna was taken in the eighteenth century by the Jāts of Bharatpur, who built a large fort, now in ruins. It has a mosque dating from 1561, and its hot springs are famed for their medicinal properties. The municipality was created in 1885. The income and expenditure during the ten years ending 1902-3 averaged Rs. 5,800 and Rs. 5,900 respectively. In 1903-4 the income was Rs. 4,800, chiefly derived from octroi; and the expenditure was Rs. 5,800. It possesses a vernacular middle school and a dispensary.

Sojat.—Head-quarters of a district of the same name in the State of Jodhpur, Rājputāna, situated in 25° 56′ N. and 73° 40′ E., on the left bank of the Sukri river, a tributary of the Lūni, about 7 miles north-west of Sojat Road station on the Rājputāna-Mālwā Railway. Population (1901), 11,107. The town is walled, and possesses a post and telegraph office, an Anglo-vernacular school, and a hospital. The principal manufactures are saddles, bridles, swords, daggers, and cutlery; and there is a considerable trade in cotton, wool, grain, and drugs. Sojat is a very old town, and is said to take its name from the local goddess, Sejal Mātā. It was once depopulated, but was reoccupied about 1054, and passed into the possession of the Rāthors about 400 years later. It suffered severely from plague in 1836, when it was infected by hundreds of refugees from Pāli.

Sojitrā.—Town in the Petlād *tāluka*, Baroda *prānt*, Baroda State, situated in 22° 32′ N. and 72° 46′ E. Population (1901), 10,578. In ancient times Sojitrā was the seat of rule of a Rājput principality. The town is administered by a municipality, receiving an annual grant from the State of Rs. 2,200, and possesses Anglo-vernacular and vernacular schools, a dispensary, and the usual public offices. Weaving and the manufacture of brass and copper pots and locks are the chief industries, while a little wood-carving is done, and there is a flourishing trade in tobacco and grain. The *patidārs* who live in and close to Sojitrā form a vigorous and intelligent community.

Solah Sarai ('Sixteen inns').—The suburbs of the town of Sambhal, in Morādābād District, United Provinces, are not included in the municipality of that name, but are administered separately under

Act XX of 1856. They form a scattered area, with a population (1901) of 10,623; and a sum of about Rs. 1,000 is raised annually and expended on watch and ward and on conservancy.

Solāni.—River of the United Provinces, which rises in the Siwālik Hills (30° 13′ N., 77° 59′ E.) from the highest point of the Mohan pass, flows south and south-east through Sahāranpur District, and then winds through a corner of Muzaffarnagar, joining the Ganges after a course of about 55 miles. The upper part of the river and most of its tributaries are mere watercourses, almost dry except during the rains, when they carry off the drainage of the Siwāliks in rushing torrents. Near Roorkee a magnificent aqueduct of brick, with fifteen arches, each 50 feet wide, conveys the water of the UPPER GANGES CANAL at a height of 24 feet above the bed of this river. The Solāni has done much damage by floods and changes in its course. In Muzaffarnagar this was intensified by percolation from the Ganges Canal, but drainage cuts have improved the tract.

Sola Singhi (or Chintpurni).—Mountain range in Hoshiārpur District, Punjab, forming the eastern boundary of the Jaswān Dūn. It commences at a point close to Talwāra, on the Beās river, and runs in a south-eastward direction between the Districts of Hoshiārpur and Kāngra. The range as it passes southwards increases steadily both in width and elevation, until it reaches its highest point at the small hill station of Bharwain, 28 miles from Hoshiārpur town on the Dharmsāla road and 3,896 feet above the sea. At this point the ridge is 14 miles across. Thence it continues till it crosses the valley of the Sutlej, its northern slope sinking gradually into the Beās basin, while the southern escarpment consists in places of an abrupt cliff about 300 feet in height. The space between its central line and the level portion of the Jaswān Dūn is occupied by a broad table-land, thickly clothed with forest, and intersected by precipitous ravines, which divide the surface into natural blocks. Another range of hills in Hoshiārpur District, which continues the line of the Sola Singhi and finally crosses the Sutlej into Bilāspur, terminates in the hill of Naina Devī, with its famous temple.

Solon.—Hill cantonment in Simla District, Punjab, situated in 30° 55′ N. and 77° 7′ E., on the southern slope of the Krol mountain, on the cart-road between Kālka and Simla, 30 miles from the latter station. Ground was acquired for a rifle range in 1863–4, and barracks were afterwards erected. Solon is the head-quarters of a British infantry regiment during the hot season. Population (March, 1901), 61.

Somamale.—Mountain in the Pādinālknād *tāluk* of Coorg, Southern India, situated in 12° 11′ N. and 75° 45′ E., the highest in Kādyetnād. It is sacred to Male Tambiran, and overlooks the Kodantora pass. It is about 6 miles south-east of Tadiandamol.

Somāstipur.—Subdivision and town in Darbhangā District, Bengal. *See* SAMĀSTIPUR.

Someswari.—River in the Gāro Hills District, Eastern Bengal and Assam. It rises to the north of Turā station, and flows east as far as Darangiri. Here it turns south and debouches on the plains of Mymensingh, through which it makes its way to the Kāngsa river, 88 miles from its source. It is navigable up-stream as high as Siju, where further progress is barred by rapids. Valuable outcrops of coal and lime have been discovered in the Someswari valley, but owing to difficulties of transport they still remain unworked. In its course through the hills the river flows through gorges of great natural beauty, where precipitous cliffs are clothed with dense tropical vegetation.

Somnāth (Deo Pattan, Prabhās Pattan, Verāval Pattan, or Pattan Somnāth).—Ancient town in the State of Junāgarh, Kāthiāwār, Bombay, situated in 20° 53′ N. and 70° 28′ E., at the eastern extremity of a bay on the south coast of the peninsula of Kāthiāwār. Population (1901), 8,341. The western headland of the bay is occupied by the port of Verāval, which gives to the locality its more common name of Verāval Pattan. On the edge of the sea, nearly half-way between the two towns, stands a large and conspicuous temple, dedicated to Siva. A few hundred yards behind this temple is the reservoir called the Bhat Kund, the traditional scene of the death of Krishna. Farther inland rises the wild hill district called the Gir, and in the remote distance stands out the sacred mountain which the people of Kāthiāwār delight to call the 'royal Girnār.' The country near Somnāth is full of memorials of Krishna, the principal centre of interest being a spot to the east of the town, where, near the union of three beautiful streams, the body of the hero is said to have been burnt.

Somnāth is a gloomy place—a city of graves and ruins. On the west the plain is covered with Musalmān tombs, on the east are numerous Hindu shrines and monuments. The town was protected on the south by a fort, and on the remaining three sides by a deep trench cut out of the solid rock. The fort, situated on the shore within a few feet of high-water mark, does not depart in any important particular from the general design of Gujarāt fortresses. It is square in form, with large gateways in the centre of each side, outworks or barbicans in front of these, and second gateways in the sides of the outworks. Somnāth is now especially famous for the manufacture of door-locks made of wood and iron. It is the head-quarters of a *mahāl* or revenue division, with the courts of revenue and judicial officers. Though some wealthy bankers and merchants reside here, the moneyed classes have mostly betaken themselves to the neighbouring port of Verāval.

Before its capture by Mahmūd of Ghazni (1024–6), little is known

of the history of Somnāth. In the eighth century this part of Kāthiāwār is said to have been in the hands of a line of Rājput princes bearing the surname of Chāvada. These chiefs probably owned allegiance to powerful Chālukyas or Solankis, who reigned at Kalyān in the Deccan. Mahmūd of Ghazni, after his invasion, left behind him a Muhammadan governor at Somnāth. Subsequently the Vajās (a sub-branch of the Rāthor tribe) acquired Somnāth and revived the glories of the ancient fane. But it was again overthrown by Ulugh in 1298. From this date Muhammadan supremacy prevailed. Afterwards, on the downfall of the Muhammadan power, Somnāth was ruled at different times by the Shaikh of Māngrol and the Rānā of Porbandar, but was finally conquered by the Nawāb of Junāgarh, in whose hands it remains.

Somnāthpur.—Village in the Tirumakūdal-Narsipur *tāluk* of Mysore District, Mysore, situated in 12° 16′ N. and 76° 53′ E., on the east bank of the Cauvery, 12 miles from Seringapatam. Population (1901), 1,468. It is noted for the Chenna-Kesava temple, the most complete existing example of the ornate Chālukyan style, erected in 1269 by Soma, an officer under the Hoysala king Nārasimha III. He also founded the *agrahāra* that formerly surrounded it. Though not on the scale of the Halebīd and Belūr temples, it rivals them in the perfection of its sculpture, and is one of the chief architectural monuments of the Mysore country.

Sompalle.—Village in the Madanapalle *tāluk* of Cuddapah District, Madras, situated in 13° 51′ N. and 78° 16′ E. Population (1901), 3,656. It is known locally for its manufacture of glass bangles, which are made from alkaline earth found in the neighbourhood and are in considerable demand all over the District. It contains an old Vaishnava temple dedicated to Chennakeswaraswāmi, in which are some exquisite stone carvings. In front of this stands a monolithic lamp-post of very graceful proportions, upwards of 50 feet in height. The temple is included in the list of ancient monuments selected for conservation by Government, some portions of it being unique.

Sompalle was formerly the seat of a local chief. During the days of the Vijayanagar kings his family obtained five villages as an estate, and the grant was continued by the Sultāns of Golconda on condition that he did military service, when called upon, with 400 foot-soldiers. The villages were resumed by the Marāthās in 1756, but given back the next year. The chief was expelled in Haidar Alī's time by Mīr Sāhib, but again possessed himself of his estate during Lord Cornwallis's campaign against Tipū. The last survivor of the family was a pensioner of the British for many years.

Sompeta Tahsīl.—*Zamīndāri tahsīl* in Ganjām District, Madras, lying between 18° 45′ and 19° 4′ N. and 84° 22′ and 84° 49′ E., south

of the Ichchāpuram *tahsīl* and east of Parlākimedi, with an area of 283 square miles. It is separated from Parlākimedi by MAHENDRAGIRI, and is bounded on the east by the Bay of Bengal. The tract of country along the coast produces coco-nuts extensively, which are exported to Cuttack and other places. The population in 1901 was 102,690, compared with 95,932 in 1891. It contains one town, SOMPETA (population, 6,455), the head-quarters; and 347 villages. The demand for land revenue and cesses in 1903-4 was Rs. 47,100. Lacquer-work on wood is done at Mandasā, the chief village of the *zamīndāri* of the same name. BĀRUVA, the chief village of another estate, is one of the three seaports of the District. The other important estates in the *tahsīl* are Jalāntra, which was sold to satisfy its late proprietor's debts and has been purchased by the Mahārājā of Vizianagram, and Budārasingi, which is heavily involved in debt. The Sompeta Agency consists of the Jarada, Mandasā, and Budārasingi Māliahs, which are held by the *zamīndārs* of the estates of those names under separate *sanads*; and the Jalantra Māliahs, which have been attached owing to the interference of their former proprietor in the internal affairs of the Māliahs, and are now under Government management.

Sompeta Town.—Head-quarters of the Sompeta *zamīndāri tahsīl* in Ganjām District, Madras, and of a District Munsif, situated in 18° 56′ N. and 84° 36′ E., near the trunk road from Madras to Calcutta, with which it is connected by a road 2 miles in length. Population (1901), 6,455.

Somvārpet (also called Nagarūr).—Head-quarters of the Nanjarājpatna *tāluk* of Coorg, Southern India, situated in 12° 36′ N. and 75° 52′ E., 26 miles north of Mercāra. Population (1901), 1,745. The name means 'Monday market,' a fair being held on that day. The water-supply and dispensary were provided from private contributions. The municipal income in 1903-4 was Rs. 1,300 and the expenditure Rs. 2,100.

Son River (Sanskrit, *Suvarna* or 'gold'; likewise called *Hiranya-Vāha* or *Hiranya-Vāhu*; the *Sonos* of Arrian; also identified with the *Erannoboas* of Arrian).—A large river of Northern India, which, flowing from the Amarkantak highlands (22° 42′ N., 82° 4′ E.), first north and then east, joins the Ganges 10 miles above Dinapore, after a course of about 487 miles.

The Son rises near the Narbadā at Amarkantak in the Maikala range, the hill on which its nominal source is located being called Sonbhadra or more commonly Sonmundā. It possesses great sanctity, the performance of *sandhyā* on its banks ensuring absolution and the attainment of heaven even to the slayer of a Brāhman. Legends about the stream are numerous, one of the most picturesque assigning the origin of the Son and Narbadā to two tears dropped by Brahmā, one

on either side of the Amarkantak range. The Son is frequently mentioned in Hindu literature—in the Rāmāyanas of Vālmīki and Tulsī Dās, the Bhagwat, and other works.

Soon after leaving its source, the Son falls in a cascade over the edge of the Amarkantak plateau amid the most picturesque surroundings, and flows through Bilāspur District of the Central Provinces till it enters the Rewah State at 23° 6′ N. and 81° 59′ E. From this point till it leaves the Central India Agency after a course of 288 miles, the stream flows through a maze of valley and hill, for the most part in a narrow rocky channel, but expanding in favourable spots into magnificent deep broad reaches locally called *dahār*, the favourite resorts of the fisher caste. Following at first a northerly course, near its junction with the Mahānadī river at Sarsi it meets the scarp of the KAIMUR HILLS and is turned in a north-easterly direction, finally leaving the Agency 5 miles east of Deorā village. In Central India three affluents of importance are received: one on the left bank, the Johillā, which likewise rises at Amarkantak and joins it at Barwālū village; and two which join it on the right bank, the Banās at 23° 17′ N. and 81° 31′ E., and the Gopat near Bardī. In the United Provinces the Son flows for about 55 miles from west to east across Mirzāpur District, in a deep valley never more than 8 or 9 miles broad, often narrowing to a gorge, and receives from the south two tributaries, the Rihand and Kanhar. During the dry season it is shallow but rapid, varying in breadth from 60 to 100 yards, and is easily fordable. The Son enters Bengal in 24° 31′ N. and 83° 24′ E., and flows in a north-westerly direction, separating the District of Shāhābād from Palāmau, Gayā, and Patna, till, after a course within Bengal of 144 miles, it falls into the Ganges in 25° 40′ N. and 84° 59′ E.

So far as regards navigation, the Son is mainly used for floating down large rafts of bamboos and a little timber. During the rainy season, native boats of large tonnage occasionally proceed for a short distance up stream; but navigation is then rendered dangerous by the extraordinary violence of the flood, and throughout the rest of the year becomes impossible, owing to the small depth of water. The irrigation system in South Bihār known as the SON CANALS is served by this river, the water being distributed west to Shāhābād and east to Gayā and Patna from a dam constructed at DEHRĪ. In the lower portion of its course the Son is marked by several striking characteristics. Its bed is enormously wide, in some places stretching for three miles from bank to bank. During the greater part of the year this broad channel is merely a waste of drifting sand, with an insignificant stream that is nearly everywhere fordable. The discharge of water at this time is estimated to fall as low as 620 cubic feet per second. But in the rainy season, and especially just after a storm has burst on the plateau of

Central India, the river rises with incredible rapidity. The entire rainfall of an area of about 21,300 square miles requires to find an outlet by this channel, which frequently proves unable to carry off the total flood discharge, calculated at 830,000 cubic feet per second. These heavy floods are of short duration, seldom lasting for more than four days; but in recent years they have wrought much destruction in the low-lying plains of Shāhābād. Near the site of the great dam at Dehri the Son is crossed by the grand trunk road on a stone causeway; and lower down, near Koelwār, the East Indian Railway has been carried across on a lattice-girder bridge. This bridge, begun for a single line of rails in 1855, and finally completed for a double line in 1870, has a total length of 4,199 feet from back to back of the abutments.

The Son possesses historical interest as being probably identical with the *Erannoboas* of Greek geographers, which is thought to be a corruption of *Hiranya-Vāhu*, or 'the golden-armed' (a title of Siva), a name which the Son anciently bore. The old town of Pālibothrā or Pātaliputra, corresponding to the modern PATNA, was situated at the confluence of the *Erannoboas* and the Ganges; and, in addition, we know that the junction of the Son with the Ganges has been gradually receding westwards. Old channels of the Son have been found between Bankipore and Dinapore, and even below the present site of Patna. In the Bengal Atlas of 1772 the junction is marked near Maner, and it would seem to have been at the same spot in the seventeenth century; it is now about ten miles higher up the Ganges.

Son Canals.—A system of irrigation works in the Districts of Shāhābād, Gayā, and Patna, Bengal, which derive their supply from an anicut across the Son river at Dehri. The idea of using the waters of the Son for irrigation originated about fifty years ago with the late Colonel C. H. Dickens, and for many years the subject was under discussion. The project was undertaken by the East India Irrigation and Canal Company, but was handed back to Government in 1868, and work was not actually commenced until the following year. Sufficient progress had been made in 1873 to allow of water being supplied through cuts in the banks of the Arrah canal to relieve the drought of that year, and the canals were completed a few years later. They carry a maximum volume of 6,350 cubic feet per second. About 80 per cent. of the irrigation lies in Shāhābād, 11 per cent. in Gayā, and 9 per cent. in Patna District.

The general plan of the works comprises the Dehri anicut, a main western canal branching off above the anicut on the left bank, and a main eastern canal branching off on the right. The anicut, or weir, which is 12,500 feet in one undivided length, and is, consequently, one of the longest weirs in existence, consists of a mass of uncemented rubble stone, with two core walls of masonry founded on shallow wells.

The work was greatly facilitated by the presence of excellent building stone a few miles from the site. Scouring sluices were provided at each flank and at the centre. Those at the centre have since been filled up. The flank sluices serve to maintain clear channels in front of the canal head sluices, and they facilitate the regulation of the height of the water in the pool above the weir. The vents are operated, by means of shutters 20 feet 6 inches in length, on a system devised by the late Mr. C. Fouracres, by which the shock of the up-stream shutter when rising is taken by hydraulic tubular struts. The system has worked well, and there is a very complete control of the river even when it is in moderate flood. The total cost of the anicut, which was finished in 1875, amounted to about 15 lakhs.

The total length of the main canals is 218 miles, of the branch canals 149 miles, and of the distributaries 1,217 miles. The western main canal supplies the Arrah, the Buxar, and the Chausā canals, which all branch off within the first 12 miles. The main canal is continued for a total distance of 22 miles, as far as the grand trunk road, 2 miles beyond Sasarām. Its prolongation for a farther distance of 50 miles to the frontier of the District, towards Mirzāpur, was commenced as a relief work during the scarcity of 1874–5, but never completed. The chief engineering work is the siphon-aqueduct of twenty-five arches, by which a formidable hill-torrent, called the Kao, is carried under the canal. The Arrah canal branches off at the fifth mile, and follows the course of the Son for 30 miles, when it strikes northwards, running on a natural ridge past the town of Arrah, and finally falls into a branch of the Ganges after a total course of 60 miles. It is designed for navigation as well as irrigation, but no permanent communication has been opened with the main stream of the Ganges. To allow for a total fall of 180 feet, 13 locks have been constructed. Besides four principal distributaries, the main offshoots are the Bihiyā canal, 30 miles long, and the Dumraon canal, 40 miles. The Buxar canal leaves the main western canal at its twelfth mile, and communicates with the Ganges at Buxar, after a course of 55 miles; it also is intended for navigation. The total fall is 159 feet, which is facilitated by twelve locks. Gayā and Patna Districts are served to a smaller extent by the eastern main canal, which was originally intended to run as far as Monghyr, but at present stops short at the Pūnpūn river, a total length of only 8 miles. The Patna canal leaves the main canal at the fourth mile, and follows the course of the Son till it joins the Ganges at Dīgha, between Bankipore and Dinapore. Its total length is 79 miles, of which 43 miles lie within the District of Gayā, and 36 in Patna.

The area irrigated in 1903–4 was 790 square miles. In 1902–3 the net revenue was 8·74 lakhs, giving a return of 3·27 per cent. on the capital expenditure; while in 1903–4 the receipts amounted to 13·24

lakhs and the working expenses to 5·38 lakhs. The capital outlay up to March 31, 1904, was 267 lakhs. The main canals are navigable, and the estimated value of cargo carried in 1902–3 was 10·2 lakhs; Rs. 19,000 was realized as navigation tolls in that year and Rs. 23,000 in 1903–4.

Sonāgir.—Hill in the Datiā State, Central India, situated in 25° 44′ N. and 78° 25′ E., 5 miles from the town of Datiā. It consists of a small ridge of gneiss, on the summit and slopes of which more than a hundred Jain temples have been erected. Seen from a distance, the hill presents a picturesque appearance, with its numerous shrines perched amid great crags of granitic rock; but closer examination leads to disillusion. The structures are all of the degraded modern type, none as it stands dating back farther than the end of the seventeenth century. They are all built of brick with inelegant white stucco rectangular bodies, bulbous ribbed Muhammadan domes, and pine-cone spires, the doors and windows ornamented with the foliated Muhammadan arch and curved Bengali eave and roof. They lack entirely the purity and homogeneity of older temples, and are disappointing.

Sonāh.—Town in the District and *tahsīl* of Gurgaon, Punjab. *See* SOHNA.

Sonai River.—River of Assam, which rises in the Lushai Hills and, after a tortuous northerly course of 60 miles through Cāchār District, falls into the Barāk. As far as Maniārkhāl it flows through jungle land, but in the lower part of its course its banks are fringed with villages. The most important of these are Palanghāt and Sonaimukh. Boats of 4 tons burden can proceed as far as Maniārkhāl during the rains, but the river is not largely used as a trade route.

Sonai Village.—Village in the Nevāsa *tāluka* of Ahmadnagar District, Bombay, situated in 19° 23′ N. and 74° 49′ E., about 24 miles north-by-east of Ahmadnagar city. Population (1901), 5,393. Sonai is a busy market, surrounded by a rich plain, and divided by a watercourse into the *peth* occupied by merchants and the *kasba* or agricultural quarter. It contains an American Mission church built in 1861.

Sonair.—Town in Nāgpur District, Central Provinces. *See* SAONER.

Sonāmganj.—Subdivision of Sylhet District, Eastern Bengal and Assam. *See* SUNĀMGANJ.

Sonāmukhi.—Town in the Bishnupur subdivision of Bānkurā District, Bengal, situated in 23° 19′ N. and 87° 36′ E. Population (1901), 13,448. Sonāmukhi was formerly the site of a commercial residency and of an important factory of the East India Company, where weavers were employed in cotton-spinning and cloth-making. It is now the local centre of the shellac industry. It lies on the road between Bishnupur and Pānāgarh station on the East Indian Railway. It was constituted a municipality in 1886. The income during the

decade ending 1901–2 averaged Rs. 5,300, and the expenditure Rs. 5,200. In 1903–4 the income was Rs. 6,000, mainly derived from a tax on persons (or property tax); and the expenditure was Rs. 5,000.

Sonāpurā.—River in Lakhimpur District, Eastern Bengal and Assam. *See* DIBRU.

Sonāpuriā.—River in the Khāsi and Jaintiā Hills District, Eastern Bengal and Assam. *See* DIGRU.

Sonār.—River in the Central Provinces, the centre of the drainage system of the Vindhyan plateau comprising the Districts of Saugor and Damoh, with a northward course to the Jumna. It rises in the low hills in the south-west of Saugor (23° 22′ N. and 78° 37′ E.), and flowing in a north-easterly direction through that District and Damoh, joins the KEN in Bundelkhand, a short distance beyond the boundary of Damoh. Of its total course of 116 miles, all but the last 4 miles are within the Central Provinces. The river does not attain to any great breadth and flows in a deep channel, its bed being usually stony. It is not navigable and no use is made of its waters for irrigation. The valley of the Sonār, lying in the south of Saugor and the centre of Damoh, is composed of fertile black soil formed from the detritus of volcanic rock. The principal tributaries of the Sonār are the Dehār joining it at Rehlī, the Gadherī at Garhākotā, the Bewas near Narsinghgarh, the Koprā near Sītānagar, and the Beārma just beyond the Damoh border. Rehlī, Garhākotā, Hattā, and Narsinghgarh are the most important places situated on its banks. The Indian Midland Railway (Bīna-Katnī branch) crosses the river between the stations of Pathariā and Aslāna.

Sonārgaon.—Ancient Muhammadan capital of Eastern Bengal, situated in 23° 40′ N. and 90° 36′ E., in the Nārāyanganj subdivision of Dacca District, Eastern Bengal and Assam, near the banks of the Meghnā, 15 miles east of Dacca city. Sonārgaon was the residence of the Muhammadan governors of Eastern Bengal from 1351 to 1608, when the capital of the whole province was transferred to Dacca. The only remaining traces of its former grandeur are some ruins in and near the insignificant village of Pānām, about 6 miles east of Nārāyanganj. Hard by is Mogrāpāra, where there was a mint, and Amīnpur, the *croribāri* or residence of the Nawāb's banker, whose descendants are still living. Hāmchādi is said to have been the residence of the commander-in-chief; and a neighbouring village, Rānījhī, is associated with the name of Ballāl Sen's mother. While Sonārgaon was the seat of government, it was a place of considerable commercial importance and was famous for its cloths and muslins; it was the eastern terminus of the grand trunk road made by Sher Shāh.

[Cunningham, *Archaeological Survey of India Reports*, vol. xv, pp. 135–45.]

Sonda.—Village in the Sirsi *tāluka* of North Kanara District, Bombay, situated in 14° 44′ N. and 74° 49′ E., 10 miles north of Sirsi town. Population (1901), 231. Sonda, now a small village, was, between 1590 and 1762, the capital of a family of Hindu chiefs. The only objects of interest are its old fort, and Smārta, Vaishnav, and Jain monasteries. The fort is ruined and deserted, and its high walls are hidden by trees and brushwood. The masonry shows traces of considerable architectural skill. The posts of the gateway are single blocks 14 to 16 feet long, and in the quadrangle are several ponds lined with large masses of finely dressed stone. Perhaps the most remarkable of the fragments is a trap slab, 12 feet square and 6 inches thick, perfectly levelled and dressed, which rests on five richly carved pillars about 3 feet high. Except this slab, which is locally believed to be the throne, not a vestige is left of the palace of the Sonda chiefs. The town is said to have had three lines of fortifications, the innermost wall being at least 6 miles from the modern Sonda. The space within the innermost wall is said to have been full of houses. In the two spaces surrounded by the outer lines of wall the houses were scattered in clumps with gardens between. A religious festival with a car-procession takes place in April–May, attended by from 2,000 to 3,000 people. The Sonda chiefs were a branch of the Vijayanagar kings, who settled at Sonda (1570–80). In 1682 Sambhājī led a detachment against Sonda, but apparently without effect. During 1745 to 1762 the place suffered much from Marāthā attacks. In 1764 Haidar Alī took and destroyed Sonda, and compelled the chief to take shelter in Goa with his family and treasure. The representative of the Sonda family still holds a position of honour in Goa.

Sone.—River and canal system in Bengal. *See* SON.

Sonepat Tahsīl (*Sonpat*).—Northern *tahsīl* of Delhi District, Punjab, lying between 28° 49′ and 29° 14′ N. and 76° 48′ and 77° 13′ E., with an area of 460 square miles. It lies to the west of the Jumna river, which separates it from the Meerut and Bulandshahr Districts of the United Provinces. The population in 1901 was 203,338, compared with 189,490 in 1891. It contains the town of SONEPAT (population, 12,990), the head-quarters; and 224 villages. The land revenue and cesses in 1903–4 amounted to 4·1 lakhs. The eastern portion of the *tahsīl* lies in the Jumna lowlands. The upland plateau to the west is irrigated by the Western Jumna Canal.

Sonepat Town (*Sonpat*; Sanskrit, *Suvarnaprastha*). — Head-quarters of the *tahsīl* of the same name in Delhi District, Punjab, situated in 29° N. and 77° 1′ E., on the Delhi-Ambāla-Kālka Railway, 28 miles north of Delhi. Population (1901), 12,990. One popular tradition avers that this is one of the five towns mentioned in the Mahābhārata which Yudhishthira demanded from Duryodhana as the

price of peace. Another ascribes its foundation to Rājā Soni, thirteenth in descent from Arjuna, a brother of Yudhishthira. It is of no commercial importance. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 14,300. In 1903–4 the income was Rs. 16,000, chiefly derived from octroi; and the expenditure was Rs. 16,400. The town possesses an Anglo-vernacular middle school, a Government dispensary, and a cotton-ginning and pressing factory which in 1904 employed 130 hands.

Sonepet.—Head-quarters of Mahārājā Sir Kishen Prasād Bahādur's *jāgīr tāluk*, Parbhani District, Hyderābād State, situated in 19° 2′ N. and 76° 29′ E., on the Wān river. Population (1901), 5,759. The town suffered much from the inundation of the Wān in 1891, and the famine of 1900. It contains a State post office, a police station, and two private schools with 200 pupils. Silk *sārīs* and fine cotton and silk fabrics are made here, and exported far and wide, and about one-third of the population subsist by weaving. The town is walled and is an important centre of trade.

Songadh.—Petty State in KĀTHIĀWĀR, Bombay.

Songarh.—Head-quarters of the *tāluka* of the same name, Navsāri *prānt*, Baroda State, situated in 21° 10′ N. and 73° 36′ E., on the Tāpti Valley Railway. Population (1901), 2,533. It is of historic interest as the place where the Gaikwārs first fixed their head-quarters. Formerly it must have been a flourishing town, and vast ruins still remain. The fort of Songarh is situated to the west of the town on a small hill, but the only portion of the defences still kept in repair is the entrance at the north end. In the lower part of the enclosed space are the ruins of what must have been a handsome palace with several storeys. This fort was originally seized from the Bhīls, some families of whom still hold *jāgīrs* in connexion with it. The town possesses a magistrate's court, a dispensary, and a special boarding-school for the boys and girls of the forest tribes. The boys are trained in carpentry and agriculture on a model farm attached to the school, where experiments in cultivation and sericulture are also being carried out. Songarh is administered as a municipality, with an annual grant from the State of Rs. 800.

Songīr.—Town in the Dhūlia *tāluka* of West Khāndesh District, Bombay, situated in 21° 5′ N. and 74° 47′ E., 14 miles north of Dhūlia. Population (1901), 4,303. Songīr, like Dhūlia, has passed through the hands of the Arab kings, the Mughals, and the Nizām. From the Nizām it came to the Peshwā, who granted it to the Vinchūrkar, from whom it fell into the hands of the British Government in 1818. Not long after the occupation of Songīr by the British, the Arab soldiers, of whom there were many at that time in Khāndesh, made an

attempt to recover the town and did actually take possession of a portion of it, but were eventually repulsed and completely defeated. Songīr has a local reputation for its brass and copper ware. Coarse woollen blankets and cotton cloths are also woven. The fort is partly commanded by a hill about 400 yards to the south; the north and south ends are of solid masonry, and the walls of uncut stone are in good order in a few places. Of the inner buildings hardly a trace remains. There is a handsome old reservoir, and a fine old well. The municipality, established in 1869, has been recently abolished. The town contains a boys' school with 200 pupils.

Sonmiāni.—Seaport in the Miāni *niābat* of the Las Bela State, Baluchistān, locally known as Miāni, situated in 25° 25′ N. and 66° 36′ E. It is 50 miles from Karāchi by land, and stands on the east shore of the Miāni Hor, a large backwater extending westward in a semicircle, about 28 miles long and 4 miles broad, and navigable as far as Gāgu. Sonmiāni contained a population of 3,166 in 1901, chiefly fishermen (Mohāna), Hindu traders, and a few artisans. Before the rise of Karāchi, Sonmiāni was important as a place through which much of the trade of Central Asia was carried via Kalāt. In 1805 it was taken and burnt by the Joasmi pirates. A British Agent was stationed here in 1840–1. Exports have much decreased, and are at present confined chiefly to salted fish, fish-maws, and mustard-seed.

Sonpat.—*Tahsīl* and town in Delhi District, Punjab. *See* SONEPAT.

Sonpur State.—Feudatory State in Bengal, lying between 20° 32′ and 21° 11′ N. and 83° 27′ and 84° 16′ E., with a total area of 906 square miles. The State was transferred from the Central Provinces to Bengal in 1905. It lies to the south of Sambalpur District on both sides of the Mahānadī river, between Patnā on the west and Rairākhol on the east. The head-quarters are at SONPUR, 54 miles distant from Sambalpur by road. The country consists of an undulating plain, with small isolated hills scattered over its surface. The Mahānadī flows through its centre, and other rivers are the Ong and Suktel, a tributary of the Tel. The Jīra bounds Sonpur to the north and the Tel to the south, all these rivers being affluents of the Mahānadī on its right bank. The surface soil has been impoverished by erosion from the rivers. The forests are not extensive, and do not contain valuable timber. Copperplate inscriptions found in the neighbourhood of the town, and attributed to the later Gupta kings and the Ganga kings of Kalinga, prove that Sonpur was colonized by the Hindus at an early period of history; and the extensive ruins of houses, temples, and wells show that it was formerly a much more important place than it is at present. Nothing definite is known of its history prior to about 1556, when it was conquered by Madhukar Sāh, fourth Rājā of Sambalpur, and settled on his son Madan Gopāl, of whom the

present ruling family are the direct descendants. They are Chauhān Rājputs by caste. The grandfather of the present chief, Nīlādhar Singh Deo, obtained the title of Rājā Bahādur for services rendered to the British Government during the Sambalpur insurrection. He died in 1891, and was succeeded by his son Pratāp Rudra Singh Deo, who obtained the same title in recognition of the improved methods of administration introduced by him. He died in 1902, and was succeeded by his son Rājā Bīr Mitrodaya Singh Deo, then 28 years old, a young man of considerable intelligence and promise, who had for some time taken an active part in the administration. A Political Agent has been appointed by the Bengal Government for the management of its relations with the State. The population in 1901 was 169,877, having decreased by 13 per cent. during the previous decade. The density is 188 persons per square mile. The State contains one town, SONPUR (population, 8,887), and 899 inhabited villages. Binkā, lying on the Mahānadī between Sambalpur and Sonpur, is a place of some importance. The inhabitants of the State are practically all Oriyās, and speak that language. Gahrās or Ahīrs, Brāhmans, Dumāls, Bhuliās, and Kewats or boatmen are the principal castes. The large proportion of Brāhmans may be attributed to the patronage of the great-grandfather of the present Rājā, and of his father, who was a Sanskrit scholar.

The soil is sandy and its fertility has been reduced by erosion. About 197 square miles, or 22 per cent. of the total area, were cultivated in 1904. Rice occupied 167 square miles, and other crops are *mūng*, *kulthī*, and *til*. The State contains 1,698 tanks, from which nearly 34 square miles can be irrigated. The forests are situated principally along the borders. *Sāl* (*Shorea robusta*) is the principal timber tree, and most of the other common species also occur. The exports of forest produce are inconsiderable, as there is a good market for them in the State itself. No minerals are worked at present. The weaving of coarse cotton and *tasar* silk cloth are the only industries, and the exports consist almost solely of agricultural produce. Before the construction of the Bengal-Nāgpur Railway, when the Mahānadī was the main outlet for the trade of Sambalpur, both Sonpur and Binkā were of some importance as places of call and transhipment, and numbers of boatmen were employed in the carriage of goods on the river. The through traffic has now practically vanished, but the produce of Sonpur is taken either up to Sambalpur or down to Cuttack. Sonpur is connected by surface roads with Sambalpur, Bolāngir, Rairākhol, and Baud, and Binkā with Barpāli. The State manages its own public works.

The revenue of the State in 1904 was Rs. 1,20,000, of which Rs. 46,000 was derived from land, Rs. 18,000 from forests, and Rs. 23,000 from excise. The State has been surveyed, but no regular settlement has

been made, and the village headmen hold on leases granted to them in 1888. The incidence of land revenue is 5 annas 4 pies per cultivated acre. The expenditure in 1904 was Rs. 1,20,000, the main heads being Government tribute (Rs. 9,000), expenses of the ruling family (Rs. 62,000), general administration (Rs. 13,000), and police (Rs. 9,000). The tribute is liable to revision. The educational institutions comprise 29 schools with 2,109 pupils, including two English middle schools with 59 pupils, a vernacular middle school, two girls' schools, and a Sanskrit school with 12 scholars. The expenditure on education in 1904 was Rs. 4,500. At the Census of 1901, 1,758 persons were returned as literate, one per cent. (2·1 males and 0·1 females) being able to read and write. Dispensaries have been established at Sonpur and Binkā, and 23,600 patients were treated in them in 1904.

Sonpur Town.—Head-quarters of the Feudatory State of the same name in Bengal, situated in 20° 51′ N. and 83° 55′ E., on the Mahānadī river at its junction with the Tel, 54 miles by road south of Sambalpur station on the Bengal-Nāgpur Railway. Population (1901), 8,887. The town contains two large tanks and a temple of Mahādeo, in which copperplates have been found giving the name of a king who reigned here in the tenth century. Coins and other remains are also found on the site, indicating that Sonpur was a comparatively large town at an early period. When the Mahānadī was the highway between Sambalpur and Cuttack, Sonpur was a place of considerable importance, of which the transfer of trade to the railway has partially deprived it. There is some local traffic on the river, and various industries are carried on in the town, among which may be mentioned the manufacture of brass images, gold-, silver-, and copper-work, silk and cotton cloth weaving, and the manufacture of iron implements. Sonpur possesses two English middle schools with 55 pupils, a girls' school, and a Sanskrit school.

Sonpur Village.—Village in the head-quarters subdivision of Sāran District, Bengal, situated in 25° 42′ N. and 85° 12′ E., on the right bank of the Gandak, close to its confluence with the Ganges. Population (1901), 3,355. It is an important station on the Bengal and North-Western Railway, which crosses the Gandak by a fine bridge connecting Sonpur with Hājīpur on the left bank. There are railway workshops which employ some 1,000 hands. The Sonpur fair, or Harihar Chattar *mela*, is held at the confluence of the Gandak and Ganges at the November full moon, and is probably one of the oldest fairs in India. It was at Sonpur that Vishnu is reputed to have rescued the elephant from the jaws of the crocodile; and it was here that Rāma, when on his way to Janakpur to win Sītā, built a temple to Harihar Nāth Mahādeo, which is still largely frequented by pilgrims. The fair lasts for a fortnight, but is at its height for two days before and after

the full moon, when Hindus bathe in the Ganges and thus acquire exceptional merit. Immense numbers assemble, and goods and animals, especially elephants, horses, and cattle, are exposed for sale. A cattle show is held at the fair, which is the largest elephant market in India. In days gone by the Sonpur race meeting was one of the most famous on this side of India, but many causes have combined to rob the meeting of its former glories. It is still, however, one of the pleasantest picnic gatherings in India for Europeans, who meet in camp under the shade of a magnificent mango grove and amuse themselves with races, dances, polo, tennis, and visits to the fair, which presents Indian life under many interesting aspects.

Sonthal Parganas.—District in Bengal. *See* SANTĀL PARGANAS.

Sonthals.—Tribe in Bengal. *See* SANTĀL PARGANAS.

Sooree.—Subdivision and town in Birbhūm District, Bengal. *See* SŪRI.

Sopāra.—Ancient town in the Bassein *tāluka* of Thāna District, Bombay, situated in 19° 25′ N. and 72° 48′ E., about 3½ miles north-west of Bassein Road and about the same distance south-west of Virār on the Bombay, Baroda, and Central India Railway. Population (1901), 486. Sopāra is said to have been the capital of the Konkan from 500 B.C. to A.D. 1300. It is still a rich country town, with a crowded weekly market. Under the name of Shurpāraka, it appears in the Mahābhārata as a very holy place, where the five Pāndava brothers rested on their way to Prabhās. According to Buddhist writers, Gautama Buddha, in one of his former births, was Bodhisattva of Sopāra. This old Indian fame gives support to the suggestion that Sopāra is Solomon's Ophir. Jain writers make frequent mention of Sopāra. Under the names Sopāraka, Sopāraya, and Shorpāraga, it is mentioned in old inscriptions, about the first or second century B.C. The author of the *Periplus* in the third century A.D. mentions Ouppara between Broach and Kalyān as a local mart on the coast.

Sorab.—North-western *tāluk* of Shimoga District, Mysore, lying between 14° 13′ and 14° 39′ N. and 74° 53′ and 75° 18′ E., with an area of 443 square miles. The population in 1901 was 71,493, compared with 70,047 in 1891. The *tāluk* contains one town, Sorab (population, 1,622), the head-quarters; and 307 villages. The land revenue demand in 1903–4 was Rs. 2,11,000. The Varada river runs through the west, at one point near Banavāsi leaving and re-entering the *tāluk*. From the south it receives the Dandāvati, which drains the east. The principal hill is Chandragutti (2,794 feet) in the west. Except in the west the country is gently undulating, with rice-fields and gardens in the valleys. Above the 'wet' lands are stretches of open 'dry-crop' fields called *hakkal*, and in the highest ground are *kāns*, patches of virgin evergreen forest. On account of this the wood-

land scenery is unique, as the *kāns* are detached in small portions with clearly demarcated margins, due to the distribution of laterite. Outside, on the higher ground, the soil is only about 4 inches in depth, while within, 15 feet from the edge, it is deep and rich enough to support the largest forest trees. These *kāns* are full of wild pepper, but more value is attached to the *bagni*-palm, from which toddy is extracted by the Halepaikas. Rice, jaggery, and areca-nuts are the principal products of the *tāluk*. The best areca gardens are in the south and west. When the areca-palms reach a certain height, betel and pepper-vines are trained up the stem. Rice and sugar-cane of good quality are grown everywhere. The rice-fields are ploughed up as soon as the crop has been cut, while the ground is still damp, and are left fallow till the early rain in May, no Vaisākh crop being raised.

Soraon.—The westernmost of the three trans-Gangetic *tahsils* of Allahābād District, United Provinces, comprising the *parganas* of Mirzāpur Chauhāri, Soraon, and Nawābganj, and lying between 25° 32′ and 25° 45′ N. and 81° 36′ and 81° 58′ E., with an area of 260 square miles. Population fell from 186,876 in 1891 to 186,758 in 1901, the rate of decrease being the lowest in the District. There are 423 villages and two towns, including MAU AIMMA (population, 6,769). The demand for land revenue in 1903–4 was Rs. 3,01,000, and for cesses Rs. 41,000. The *tahsīl* has a higher density, 718 persons per square mile, than any in the District except that which contains the city of Allahābād, and parts of it are more thickly populated than any rural area in the United Provinces. The upland portion consists of remarkably fertile soil, overspread with a network of *jhīls*, which supply water for rice cultivation. Excellent sugar-cane and rice are grown. In 1903–4 the area under cultivation was 163 square miles, of which 68 were irrigated. Tanks or *jhīls* supply one-fourth of the irrigation, and wells most of the remainder.

Sorath.—*Prānt* or division of Kāthiāwār, Bombay, situated in the south-west corner of the peninsula, and including, among others, the chiefships of JUNĀGARH, PORBANDAR, and JĀFARĀBĀD. The area is 5,217 square miles, and the population in 1901 was 677,987. The revenue in 1903–4 amounted to Rs. 53,99,349.

Soron.—Town in the Kāsganj *tahsīl* of Etah District, United Provinces, situated in 27° 54′ N. and 78° 45′ E., on the Būrhigangā, an old bed of the Ganges. It is the junction of a branch of the Cawnpore-Achhnerā Railway from Kāsganj with a branch of the Rohilkhand and Kumaon Railway which passes through Budaun to Bareilly. Population (1901), 12,174. Soron is a place of considerable antiquity. According to tradition it was known as Ukala-kshetra, but after the destruction of the demon, Hiranya Kasyapa, by Vishnu, in his Boar incarnation, the name was changed to Sūkara-kshetra (*Sūkar*

or 'wild boar'). A mound, known as the *kila* or fort, marks the site of the ancient town. A temple dedicated to Sītā and Rāma, and the tomb of a Muhammadan saint, Shaikh Jamāl, stand on the mound; but large antique bricks strew the ground on all sides, and the foundations of walls may be traced throughout. The temple was destroyed during the fanatical reign of Aurangzeb, but restored towards the close of the last century by a wealthy Baniā, who built up the vacant interstices between the pillars with plain white-washed walls. The architectural features of the pillars resemble those of the quadrangle near the Kutb Minār at Delhi. Numerous inscriptions by pilgrims in the temple bear date from A.D. 1169[1] downward. Soron lies on the old route from the foot of the hills to Hāthras and Agra, and has some pretensions as a trading mart; but it is chiefly important for its religious associations and as the scene of frequent pilgrim fairs. Up to the seventeenth century the Ganges flowed in the channel now known as the Būrhigangā; and devout Hindus, after visiting Muttra, come on to Soron to bathe in the stream, which here forms a considerable pool, lined with handsome temples and *ghāts*. The pool is now fed by an irrigation channel. The most important bathing, however, takes place in the Ganges itself, 4 miles north of Soron. The road to Budaun crosses the Būrhigangā by a fine stone bridge. There are many substantial houses and fifty or sixty temples shaded by fine *pīpal*-trees, and thirty large *dharmsālas* or resthouses for pilgrims; some of these, exquisitely carved in Agra stone, attest the wealth and piety of pilgrims from the Native States of Gwalior and Bharatpur. The town also contains a dispensary, a municipal hall, and a branch of the Church Missionary Society. Soron has been a municipality since 1868. During the ten years ending 1901 the income and expenditure averaged Rs. 10,000. In 1903-4 the income was Rs. 15,000, chiefly derived from octroi (Rs. 8,000); and the expenditure was Rs. 20,000. The trade is largely devoted to supplying the wants of the pilgrims; but sugar-refining is increasing in importance, and a great deal of cotton yarn is spun here as a hand industry. The municipality supports two schools and aids two others with a total attendance of 243 pupils.

South Arcot.—District in Madras. *See* ARCOT, SOUTH.

South Barrackpore.—Town in the Twenty-four Parganas District, Bengal. *See* BARRACKPORE.

South Canara.—District in Madras. *See* KANARA, SOUTH.

South Dum-Dum.—Town in the Twenty-four Parganas District, Bengal. *See* DUM-DUM.

South Kanara.—District in Madras. *See* KANARA, SOUTH.

South Suburbs.—Town in the Twenty-four Parganas District, Bengal. *See* CALCUTTA, SOUTH SUBURBS.

[1] A. Cunningham, *Archaeological Survey Reports*, vol. i, p. 267.

South Sylhet.—Subdivision of Sylhet District, Eastern Bengal and Assam. *See* SYLHET, SOUTH.

Southern Division (Bombay).—A Division of the Presidency of Bombay, lying between 13° 53′ and 19° 8′ N. and 72° 51′ and 76° 32′ E., with an area of 24,994 square miles. It comprises the Konkan Districts, as well as Belgaum, Dhārwār, Bijāpur, and North Kanara. During the last thirty years population has increased by 8 per cent.: (1872) 4,693,629, (1881) 4,370,220, (1891) 5,008,063, and (1901) 5,070,692. In the last decade, owing to plague, the increase was only one per cent. The density of population is 203 persons per square mile, compared with an average of 151 for the Presidency. In 1901 Hindus formed 89 per cent. of the population, Musalmāns 9 per cent., while Jains numbered 73,069, and Christians 35,154.

The area, population, and revenue of the Districts are :—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Belgaum	4,649	993,976	17,17
Bijāpur	5,669	735,435	15,35
Dhārwār	4,602	1,113,298	27,08
North Kanara	3,945	454,490	10,77
Kolāba	2,131	605,566	13,48
Ratnāgiri	3,998	1,167,927	9,27
Total	24,994	5,070,692	93,12

Kolāba and Ratnāgiri lie in the Konkan, where the rainfall is plentiful; Kanara is half above and half below the Ghāts. The Division contains 50 towns and 7,527 villages. The largest towns are HUBLI (population, 60,214), BELGAUM (36,878, including cantonments), DHĀRWĀR (31,279), GADAG (30,652), and BIJĀPUR (23,811).

The chief places of commercial importance are Hubli and Dhārwār. Bijāpur is a place of historical interest, and has many archaeological remains dating from the time when it was an independent Muhammadan kingdom. SAUNDATTI-YELLAMMA in Belgaum is an important place of pilgrimage.

The Political Agencies shown in the table on the next page are under the supervision of the Commissioner of this Division. The head-quarters of the Commissioner are at Belgaum.

Southern Marāthā Country (or Bombay Carnatic).—This is the portion of the old Karnāta, the Kanarese country, included in the Bombay Presidency (*see* CARNATIC), and comprises the Districts of Belgaum, Bijāpur, Dhārwār, and North Kanara above the Western Ghāts, with the Native States of Kolhāpur and the Southern Marāthā Agency, making up a total area of 5,074 square miles, with a popu-

lation (1901) of 370,265 persons. For the first six centuries of the Christian era the country seems to have been ruled by a number of petty dynasties, of whom the Kadambas and Gangas are the best known. The early Chālukyas, the Rāshtrakūtas, and the Western Chālukyas next held sway, and were displaced by the Hoysalas who disputed the overlordship with the Yādavas of Deogiri. From the eleventh to the thirteenth century all real power was in the hands of local chiefs, among whom the Kadambas of Goa and Hangal and the Rattas of Saundatti occupied a leading place. Under the Vijayanagar empire (*c.* 1336–1565) these petty chiefships maintained themselves with more or less formal acknowledgement of the central power. Late in the sixteenth century the Bijāpur kings began to conquer the country; but their progress was interrupted by conflict with the Portuguese and the nascent power of the Marāthās, who soon ousted the Bijāpur governors from these dominions and whose name has prevailed in the descriptive title of the country.

Agency.	Name of State.	Area in square miles.	Population, 1901.	Revenue, 1903-4, in thousands of rupees.
Kolāba	Janjīra	324	85,414	5,04
Sāvantvādi	Sāvantvādi	926	217,732	4,33
Bijāpur	Jath	885	61,868	3,52
	Daflāpur	96	6,797	
Dhārwār	Savanūr	70	18,446	88
	Total	2,301	390,257	13,77

Where it adjoins the Deccan plains, the Bombay Southern Marāthā Country is, like them, a treeless, flat tract, scantily watered and interspersed with rocky hill ranges. Farther south the western portion is covered with forest, which is dense on the line of the Western Ghāts, but opens out to permit of cultivation where the country becomes more level. Farther east again is a well-watered and fertile plain, supplied with numerous irrigation reservoirs, beneath which are valuable spice gardens and irrigated crops.

Southern Marāthā Jāgīrs.—A group of States in Bombay, under the Political Agent of Kolhāpur and the Southern Marāthā Country, comprising the following *jāgīrs*: JAMKHANDI, KURANDVĀD, MIRĀJ, MUDHOL, RĀMDURG, and SĀNGLI. Kurandvād and Mirāj have each two branches, known as the Senior and Junior States. Except Mudhol, the *jāgīrs* belong to Konkanasth Brāhmans of the Patvardhan and Bhāve families. The ancestors of the Patvardhans received the territories jointly as a grant from the Peshwā in 1763; and although the family remained undivided for some years, its three representatives resided separately at Mirāj, Tāsgaon, and Kurandvād. By 1812 the

power of the Patvardhan family had excited the jealousy of the Peshwā, who attempted to strip them of their rights; and in that year, therefore, they placed themselves under the protection of the British Government. The *jāgīrs* are divided into a large number of isolated patches, scattered over the country between the Bhīma and the southern frontier of the Presidency. In physical aspects they do not differ materially from the adjacent British Districts. Geologically, the northern States belong to the Deccan trap series, while those in the south are situated within the region of Archaean gneiss. The total area is 2,985 square miles, and the total population in 1901 was 626,084, compared with 639,270 in 1891. The States contain 30 towns and 583 villages. Hindus number 545,294, Musalmāns 52,502, Jains 27,714, and Christians 542. The *jāgīrs* have no ethnical unity, the population being in parts Marāthā and in parts Kanarese.

Southern Shan States.—A group of Native States in Burma. *See* SHAN STATES, SOUTHERN.

Spiti (*Piti*).—Himālayan *wazīri* or canton of the Kulū subdivision of Kāngra District, Punjab, lying between 31° 42′ and 32° 59′ N. and 77° 26′ and 78° 42′ E., with an area of 2,155 square miles. The population (1901) is only 3,231, or less than 2 persons per square mile. Spiti is completely hemmed in by lofty mountain ranges with an average elevation of 18,000 feet, which divide it from Lāhul on the west, Bashahr on the south, Great Tibet on the east, and Ladākh on the north. It includes the upper valley of the Spiti river, which, rising in the Western Himālayas, at about 16,000 feet, flows south-east into Tibet, and thence enters Bashahr at an elevation of 11,000 feet, and ultimately finds its way into the Sutlej; the upper valley of the Pāra river, which also enters Tibet and then falls into the Spiti, their united streams equalling the Sutlej in volume at their junction with that river; the valley of the Isamp, whose waters fall into the Indus; and the eastern half of the Upper Chandra valley. Of these four valleys, only that of the Spiti is inhabited. The most important tributary of the Spiti river is the Pīn, which rises in the angle of the Mid-Himālayan and Mānirang ranges, and joins the Spiti after a course of 45 miles, a short distance above Dankar, the principal village of the valley. The mountains of Spiti are yet more lofty than in the neighbouring country of Lāhul. In the Outer Himālayas is one peak of 23,064 feet, and many along the whole line are considerably over 20,000. Of the Mid-Himālayas, two peaks exceed 21,000 feet, and in the southern range the Mānirang is 21,646 feet in height. From the main ranges transverse lines of mountains project far into the valley on either side, leaving in many cases only a narrow gorge, through which flows the Spiti river. Even these minor ranges contain peaks the height of which in many instances exceeds 17,000 feet. The

mean elevation of the Spiti valley is 12,981 feet above sea-level. Several villages are situated at an elevation of upwards of 13,000 feet, and one or two as high as 14,000 feet. Scarcely any vegetation clothes the bare and rocky mountain slopes; yet the scenery is not devoid of a rugged grandeur, while the deep and peculiar colour of the crags often gives most picturesque effects to the otherwise desolate landscape. Red and yellow predominate in the rocks, contrasting finely with the white snowy peaks in the background and the deep blue sky overhead. The villages stand for the most part on little flat plateaux, above the cliffs of the Spiti river; and their white houses, dotted about among the green cultivated plots, afford rare oases in the desert of stony débris which covers the mountain sides. There is practically no rain, but the snowfall in winter is very severe. The mean temperature of the Upper Spiti valley is 17° in January and 60° in July.

The history of Spiti commences with the first formation of the kingdom of LADĀKH, after which event the valley seems for a while to have been separated from that government, and attached to some other short-lived Tibetan principality. About 1630 it fell into the hands of Sinagi Nāmgyāl, king of Ladākh, who allotted it to his third son, Tenchbog. Soon afterwards, it became a part of the Guge principality, which lay to the east, in what is now Chinese Tibet; and it did not again come under the dominion of Ladākh till about 1720. In that year the king of Ladākh, at the conclusion of a war with Guge and Lhāsa, married the daughter of the Tibetan commander, and received Spiti as her dower. Thenceforward the valley remained a province of Ladākh; but, from its remote and inaccessible position, it was practically left for the most part to govern itself, the official sent from Leh usually disappearing as soon as the harvest had been gathered in and the scanty revenue collected. Spiti was always liable to be harried by forays; but the people, being an unwarlike race, preferred the payment of blackmail to the armed defence of their barren valley.

After the Sikhs annexed the neighbouring principality of KULŪ in 1841, they dispatched a force to plunder Spiti. The inhabitants, in accordance with their usual tactics, retreated into the mountains, and left their houses and monasteries to be plundered and burnt. The Sikhs retired as soon as they had taken everything upon which they could lay hands, and did not attempt to annex the valley to Kulū, or to separate it from Ladākh. In 1846, however, on the cession of the trans-Sutlej States to the British after the first Sikh War, the Government, with the object of securing a road to the wool districts of Chāng Thāng, added Spiti to Kulū, giving other territory in exchange to the Mahārājā of Kashmīr. In the same year, Captain (afterwards Sir A.) Cunningham and Mr. Vans Agnew demarcated the boundary between Spiti, Ladākh, and Chinese Tibet. Since that date, the

valley has been peacefully governed by the native hereditary ruler or *nono*, supported by the Assistant Commissioner of Kulū. The *nono* is assisted by five elders or *gatpos*, and practically manages all the internal affairs of the canton in accordance with the Spiti Regulation (No. I of 1873). The British codes are not applicable to Spiti, unless specially extended.

The people are Tartars by race and Buddhist by religion, and extensive monasteries often crown the lower ridges overhanging the villages. The principal and richest monastery is at Ki; that of Tangiūt receives members of the *nono's* family; while at Dankhar is a less important monastery. The monks of these three all belong to the celibate Gelukpa sect. At Pīn is a smaller monastery, belonging to the Dukhpa sect, which permits marriage, and the descendants of its inmates still practise singing and dancing as allowed by their founder. Talo contains an extensive *lāmāsarai*, built by the gods in a single night. As this was not constructed by Buddhists, it does not rank as a monastery (*gonpa*). It possesses a remarkable collection of nearly life-size idols, and one of Chamba 16 feet high. Unlike the *gonpas*, which are all built on lofty eminences, it stands on a level spot and contains about 300 monks. The monasteries, which are endowed with tithes of grain (*pun*) levied from every field, are extensive buildings, standing apart from the villages. In the centre of the pile are the public rooms, consisting of chapels, refectories, and storerooms; round them cluster the separate cells in which the monks live. Each landholder's family has its particular *tāsha* or cell in the monastery to which it is hereditarily attached; and in this all the monks of the family—uncles, nephews, and brothers—may be found living together. The monks ordinarily mess in these separate quarters, and keep their books, clothes, cooking utensils, and other private property in them. Some mess singly, others two or three together. A boy monk, if he has no uncle to look after him, is made a pupil to some old monk, and lives in his cell; there are generally two or three chapels—one for winter, another for summer, and a third perhaps the private chapel of the abbot or head *lāma*.

The monks meet in the chapel to perform the services, which ordinarily consist of readings from the sacred books; a sentence is read out and then repeated by the whole congregation. Narrow carpets are laid lengthways on the floor of the chapel, one for each monk; each has his allotted place, and a special position is assigned to the reader; the abbot sits on a seat of honour, raised a little above the common level of the floor; the chapels are fine large rooms, open down the centre, which is separated from the sides by rows of wooden pillars. At the far end is the altar, consisting of a row of large coloured figures, the images of the *avatār* or incarnation of

Buddha of the present age, of the coming *avatār* of the next age, and of the *gurūs* Rimbochi, Atishā, and other saints. In some chapels a number of small brass images from China are ranged on shelves on one side of the altar, and on the other stands a bookcase full of the sacred books, which are bundles of loose sheets printed from engraved blocks in the fashion which has been in use in Tibet for many centuries. The walls all round the chapel are painted with figures of male or female divinities, saints, and demons, or hung with pictures on cloth with silk borders; similar pictures on cloth are also suspended across the chapel on ropes. The best pictures are brought from Great Tibet as presents to the monastery by monks who return from taking the degree of *gelang* at Lhāsa, or who have been living for some years in one of the monasteries of that country. They are painted in a very quaint and conventional style, but with considerable power of drawing and colouring. Huge cylindrical prayer-wheels, which spin round at a slight touch of the finger, stand round the room, or on each side of the altar. In the storerooms among the public property are kept the dresses, weapons, and fantastic masks used in the *chām* or religious plays; also the drums and cymbals, and the robes and quaint head-dresses worn by the superior monks at high ceremonies.

The refectory or public kitchen is only used on the occasion of certain festivals, which sometimes last several days, during which special services are performed in the chapels. While these festivals last, the monks mess together, eating and drinking their fill of meat, barley, butter, and tea. The main source from which the expense of these feasts is met is the *pun* (tithe), which is not divided among the monks for everyday consumption in the separate cells. To supply his private larder, each monk has, in the first place, all he gets from his family in the shape of the produce of the '*lāma's* field' or otherwise; secondly, he has his share, according to his rank in the monastery, of the *bula* or funeral offerings and of the harvest alms; thirdly, anything he can acquire in the way of fees for attendance at marriages or other ceremonies or in the way of wages for work done in the summer. The funeral offerings made to the monasteries on the death of any member of a household consist of money, clothes, pots and pans, grain, butter, &c.; the harvest alms consist of grain collected by parties of five or six monks sent out on begging expeditions all over Spiti by each monastery just after the harvest. They go round from house to house in full dress, and standing in a row, chant certain verses, the burden of which is—'We are men who have given up the world, give us, in charity, the means of life; by so doing you will please God, whose servants we are.' The receipts are considerable, as each house gives something to every party. On the death of a monk, his private property, whether kept in his cell or deposited

in the house of the head of the family, goes not to the monastery, but to his family—first to the monks of it, if any, and in their default, to the head or *kāng chimpa*. When a monk starts for Lhāsa, to take his degree, his *kāng chimpa* is bound to give him what he can towards the expenses of the journey, but only the well-to-do men can afford it. Many who go to Lhāsa get high employment under the Tibetan government, being sent to govern monasteries, &c., and remain there for years; they return in old age to their native monastery in Spiti, bringing a good deal of wealth, of which they always give some at once to their families.

The cultivated area in Spiti is only 2 square miles. The principal crop is barley. The exports include cereals, manufactured cloth, yaks, and yaks' tails. The imports comprise salt, tobacco, madder, and tea from Lhāsa; wool, turquoises, amber, and wooden vessels from Kanāwār; coarse cloth, dyes, and soda from Ladākh; and iron from Mandī and Kanāwār. A handsome breed of ponies is imported from Chamarti. There are no police, schools, or dispensaries. The shortest route to Spiti from Kulū is over the Hamta pass (14,200 feet), up the Chandra valley over the Great Shigri glacier, and then over the Kanzam La or pass (14,900 feet), so that this is beyond question the most inaccessible part of the British dominions in India. DANKHAR is the chief village and the head-quarters of the *nono*.

Sravana Belgola.—Village in the Channarāyapatna *tāluk* of Hassan District, Mysore, situated in 12° 51′ N. and 76° 29′ E., 8 miles south-east of Channarāyapatna. Population (1901), 1,926. This is the chief seat of the Jain sect in Southern India, being the residence of the principal *gurū*. At the top of Vindhyabetta or Indrabetta, 400 feet above the village, stands the colossal statue of Gomata, 57 feet high, surrounded by numerous sacred buildings. On Chandrabetta there are also many temples, and between the two hills a splendid tank (*belgola*). According to the tradition of the Jains, Bhadrabāhu, one of the Srutakevali, as the immediate successors of the personal disciples of Vardhamāna or Mahāvīra are called, died here in a cave on Chandrabetta, while leading a migration to the South from Ujjain, to escape a twelve years' famine which he had predicted. He is said to have been accompanied as his chief attendant by the Maurya emperor, Chandra Gupta, who had abdicated the throne and, in accordance with Jain rules, adopted the life of a hermit. These events are borne out by rock inscriptions of great antiquity, though without a date. The grandson of Chandra Gupta, it is said, paid a visit to the spot, and the present town arose out of his encampment. The oldest *bastī* on the hill is one dedicated to Chandra Gupta. Its façade is sculptured with ninety scenes from the lives of Bhadrabāhu and Chandra Gupta; but these are more modern, dating perhaps from

early in the twelfth century. The gigantic statue was erected, according to inscriptions at its foot in Nāgarī, Old Kanarese, Grantha, and Vatteluttu characters, and in the Marāthī, Kanarese, and Tamil languages, by Chāmunda Rāya. He was minister and general to the Ganga king Rāchamalla, and the date of the statue is probably 983. The name of the sculptor may have been Aritto Nemi. The surrounding enclosures were erected, as stated at the foot of the statue, by Ganga Rājā, general of the Hoysala king Vishnuvardhana, their date being 1116. The image is nude and stands erect, facing the north, being visible for many miles round the country. The face is a remarkable one, with a serene expression; the hair is curled in short spiral ringlets all over the head, while the ears are long and large. The figure is treated conventionally, the shoulders being very broad, the arms hanging straight down the sides, with the thumbs turned outwards. The waist is small. From the knee downwards the legs are somewhat dwarfed. The feet are placed on the figure of a lotus. Representations of ant-hills rise on either side, with figures of a creeping plant springing from them, which twines over the thighs and arms. These symbolize the complete spiritual abstraction of a *yati*, absorbed and motionless during his long period of penance. Though by no means elegant, the image is not wanting in majestic and impressive grandeur. 'Nothing grander or more imposing,' says Mr. Fergusson, 'exists anywhere out of Egypt, and even there no known statue surpasses it in height.' It was probably cut out of a rock which projected high above the hill, or the top of the hill itself may have been cut away. The figure has no support above the thighs. The Jain establishment was maintained by successive dynasties, until, in common with others, it was shorn of many of its privileges and emoluments by Tipū Sultān, and is now in a reduced condition. Brass vessels are made in the place, and there is some local trade. The municipality formed in 1893 became a Union in 1904. The receipts and expenditure during the eight years ending 1901 averaged Rs. 470 and Rs. 360. In 1903-4 they were Rs. 500 and Rs. 1,400.

Srāvasti.—Ancient city in Northern India, the site of which is uncertain. *See* SET MAHET.

Srīgobindpur.—Town in the Batāla *tahsīl* of Gurdāspur District, Punjab, situated in 31° 41′ N. and 75° 29′ E., on the north bank of the Beās, 30 miles from Gurdāspur town. Population (1901), 4,380. It is a place of great sanctity among the Sikhs, having been founded by Gurū Arjun, who bought the site, built the town, and called it after his son and successor, Har Gobind. The municipality was created in 1867. The income and expenditure during the ten years ending 1902-3 averaged Rs. 6,300 and Rs. 6,100 respectively. In 1903-4 the income was Rs. 4,600, chiefly from octroi; and the expenditure was

Rs. 6,400. The town is of little commercial importance, and its chief trade is in sugar, of which there are several refineries. The municipality maintains an Anglo-vernacular middle school and a dispensary.

Srīharikota.—Island in the Gūdūr *tāluk* of Nellore District, Madras, lying between 13° 29′ and 13° 59′ N. and 80° 11′ and 80° 21′ E. Population (1901), 11,149. It is a long, low bank of alluvial deposit, rising a few feet above sea-level, 35 miles in length and 6 miles wide at its broadest part. It is washed on the east by the Bay of Bengal and on the west by the PULICAT LAKE, and stretches from Coromandel on the south to Dugarāzupatnam on the north, where it is separated from the mainland by a narrow channel. The island, which was transferred from the District of Madras City in 1865, contains eighteen Government villages, one *shrotriem*, and one *zamīndāri* village. It is covered with dense jungle, which forms one of the chief sources of supply of firewood for the Madras market, the wood being transported by a tramway 13 miles long and carried to Madras by the Buckingham Canal. Casuarina grows well on the sandy soil. The climate is unhealthy, and there is much elephantiasis. Along the Pulicat Lake a narrow strip of land is under rice, and round the huts scanty crops of *rāgi* are raised. The island is one of the homes of the Yānādis, a forest tribe numerous in this District.

Srīkūrmam ('Holy tortoise').—Place of pilgrimage in the Chicacole *tāluk* of Ganjām District, Madras, situated in 18° 16′ N. and 84° 1′ E., 9 miles south-east of Chicacole. Population (1901), 6,510. The temple is dedicated to the Tortoise incarnation of Vishnu. It was formerly a Saiva shrine, but is said to have been changed into a Vaishnav place of worship by the celebrated Hindu reformer Rāmānujāchārya. The gateways and pillars of the granite verandas round the temple are of great architectural beauty; and it contains many old inscriptions in Telugu and Devanāgari characters, which cover a period of 800 years from the eleventh century and afford unique material regarding the history of various early dynasties, such as the Gangas, Matsyas, Sīlas, and Chālukyas. The most important festival at Srīkūrmam is the Dolotsavam, held annually in March, at which about 20,000 pilgrims are present.

Srī Mādhopur.—Twn in the Dānta Rāmgarh *tahsīl* of the Sāmbhar *nizāmat* of the State of Jaipur, Rājputāna, situated in 27° 28′ N. and 75° 36′ E., about 40 miles north of Jaipur city. Population (1901), 6,892. The streets are laid out on the same rectangular plan as at the capital. The town possesses 6 schools attended by about 330 boys, and a hospital with accommodation for 4 in-patients.

Srīmushnam.—Village in the Chidambaram *tāluk* of South Arcot District, Madras, situated in 11° 23′ N. and 79° 24′ E. Population (1901), 3,918. It has an old Vaishnav temple, which is considered to

rank next to that at Srīrangam in point of sanctity. The idol of Bhūvarāhaswāmi in it is alleged to be self-created. The shrine is said to have been destroyed three times during the Kali Yuga, and to have been rebuilt as it now is by Achyutappa Naik of Tanjore. Among some fine carvings in a black stone (probably trap) are four well-executed figures, said to represent Achyutappa Naik and his three brothers. The local history of the temple relates that the locality where it is situated was called Srīmushnam ('destruction of prosperity') because Vishnu lived there after rescuing the world from the depths of the ocean, whither it had been carried by the demon Hiranyāksha. The drops of water which ran off his body when he emerged from the sea made the reservoir attached to the shrine. There are two great annual festivals. At one of them the idol is taken to bathe in the sea at the point on the shore opposite the supposed meeting-place, out at sea, of the waters of the Vellār and the Coleroon.

Srīnagar City.—Capital of Kashmīr State, situated in 34° 5′ N. and 74° 50′ E., at an elevation of 5,250 feet above sea-level. The city lies along the banks of the Jhelum, with a length of about 3 miles and an average breadth of 1¼ miles on either side of the river. Originally houses were confined to the right bank of the river, and the site possesses many advantages, strategical and economic. It is not known when the extension on the left bank took place, but the royal residence was transferred to it in the reign of Ananta, 1028–63.

Description.

Modern Srīnagar, on the right bank of the Jhelum, occupies the same position as the ancient city of king Pravarasena II, who ruled at some period of the sixth century. Kalhana, in his famous chronicle, says that the city contained 3,600,000 houses, and, writing of his own times, he states that there were mansions reaching to the clouds. Later Mirza Haidar and Abul Fazl mention the lofty houses of Srīnagar built of pine-wood; and Mirza Haidar says that the houses had five storeys, and that each storey contained apartments, halls, galleries, and towers. The city lies cradled between the hill of Sarika, now corrupted into Harī Parbat, and the hill of Gopa (Gopādri), now commonly known as Takht-i-Sulaimān or 'Solomon's throne.' Beyond the hills lies the exquisite Dal Lake, the never-failing source of food as well as pleasure to the citizens. In Hindu times the Harī Parbat was not fortified. The present fort on the summit is quite modern, and the bastioned stone wall enclosing the hill was built by Akbar. There are various legends regarding the temple known to the Hindus as Sankarāchārya, which crowns the picturesque peak of the Takht-i-Sulaimān. The superstructure is not ancient; but the massive and high base of the temple is probably very old, and is connected with the worship of Jyeshtharudra, in whose honour the legendary king Jalauka built a shrine.

There are not many buildings of note in Srīnagar. On the left bank stands the Shergarhi, the modern palace of the Dogrā rulers, where the Mahārājā and his family live and the State officials work. The site was chosen by the Afghān governors for their fortified residence. Across the river is the finest *ghāt* in Srīnagar, the Basant Bāgh, with grand stone steps pillaged from the mosque of Hasanābād, a reversal of the more common conditions in Kashmīr, for most of the modern buildings in the valley are formed of materials robbed from the old Hindu temples. Lower down on the right bank is the beautiful mosque of Shāh Hamadān, one of the most sacred places in Kashmīr. As usual, it was built on the foundations of a Hindu temple, and a Hindu idol in a niche in the stone foundation is daily worshipped by the Hindus. It is constructed of *deodār*-wood beautifully carved. The pagoda-like roof is surmounted by a curious finial capped with brass, and the four corners of the roof are finished by a kind of gargoyle with large wooden tassels attached, a form of construction which distinctly suggests Buddhist influence. Next in sanctity to the Shāh Hamadān is the great mosque, or Jāma Masjid, a short distance from the right bank of the Jhelum, between the bend of the river and the Harī Parbat. This is a Saracenic building of some grandeur, with cloisters, about 120 yards in length, supported by grand pillars of *deodār* 30 feet in length, resting on stone foundations, once part of Hindu temples. The Jāma Masjid has passed through many vicissitudes. Originally built by the great king Zain-ul-ābidīn, it was many times destroyed by fire, and was many times rebuilt, once by Shāh Jahān. It was repaired by the Afghān Muhammad Azīm Khān. The Sikhs closed the mosque for twenty-three years, but their Musalmān governor, Shaikh Ghulām Muhī-ud-dīn, reopened it. The ground on which it stands is still sacred to Buddhists from Ladākh and to the Hindus. Nearly opposite to the Shāh Hamadān is the stone mosque founded in the reign of Jahāngīr by his queen Nūr Jahān. This was rejected by the Kashmīris on account of the sex of the founder, and has always been appropriated to secular uses. Other notable religious buildings of the city are the shrine of Makhdūm Sāhib below the Harī Parbat, and those of Pīr Dastgīr and the Nakshbandi.

Srīnagar means the city of Srī or Lakshmī, the goddess of fortune; but to the people of the valley the city is still known as Kashmīr, a name full of meaning, inasmuch as until quite recent years the welfare of the villagers was subordinated to the selfish interest of the city people, and Srīnagar was in fact as well as in name Kashmīr.

Admirably situated on a navigable river, with canals leading to the Dal and Anchār Lakes, in a neighbourhood of extraordinary fertility, and recently endowed with an excellent water-supply, the city of the goddess of fortune is liable to cruel visitations of fires, floods, earth-

quakes, and cholera. The wooden houses are an easy prey to fire; and every man, woman, and child carries a potential instrument for a conflagration in the *kangar*, or *kangri*, and the beds of straw very quickly start a fire. Easily lighted, these fires are very difficult to extinguish, as the wretched lanes are narrow and tortuous, and the people very helpless and inert. Twice, in the time of the late Mahārājā Ranbīr Singh, the greater part of the city was burnt down, and before his accession Srīnagar had been destroyed by fire sixteen times. Within the last ten years there have been two serious fires. One broke out near the second bridge and destroyed nearly a mile of the city, and the other burnt down the chief emporium of trade, the Mahārājganj.

The city chokes the course of the Jhelum; and when continuous warm rain in the southern mountains melts the snows, the river comes down in high flood and great loss is caused to the lower parts. In 1893 there was a memorable flood; but luckily the climax came in daytime and only seventeen of the city people were killed, sixteen from drowning and one from the falling of a house. The first bridge, the Amīran Kadal, stood, though it was submerged; but the second bridge, the Hawā Kadal, succumbed and carried away the other five bridges which span the river. The old-fashioned and picturesque Amīran Kadal has now been replaced by a handsome masonry bridge. The flood of 1893 was surpassed by the yet more serious inundation of 1903.

The valley is liable to earthquakes, and since the fifteenth century eleven great earthquakes have occurred, all of long duration and accompanied by great loss of life. The last two assumed their most violent form in an elliptical area of which Srīnagar and Bāramūla were the focuses. In 1885 the shocks lasted from May 30 till August 16. There was a general panic and the people slept out of doors. Just as the style of house in Srīnagar lends itself to conflagration, so does its very frailty enable it to bend before the shock of the earthquake.

In the great famine of 1877–9, though the city did not suffer to the same extent as the villages, it is stated that the population was reduced from 127,400 to 60,000.

Epidemics of cholera are unfortunately frequent. In the nineteenth century there were ten visitations, that of 1892 probably proving the most disastrous; 5,781 persons died at Srīnagar and the mortality in one day rose to 600. All business was stopped, and the only shops which remained open were those of the sellers of white cloth for winding-sheets. The epidemics were rendered more terrible by the filthy habits of the people and the neglect of sanitation. Since 1892, conditions have improved. A good water-supply has enabled the authorities to keep subsequent epidemics in hand, and well-drained airy streets are replacing the squalid alleys. Streets have been paved and many narrow pits and excavations have been filled in, but much still remains to be done.

In spite of drawbacks, the population has risen from 118,960 in 1891 to 122,618 in 1901. Of this total, 27,873 are Hindus and 94,021 Musalmāns. The mean density is 15,327 persons per square mile, an increase of 451 since 1891. The Kashmīris are notoriously a prolific race, and families of ten to fourteen are not uncommon.

Population.

The once famous shawl industry is now only a tradition. The trade received its death-blow in 1870, when war broke out between Germany and France; and the lingering hope of revival was shattered by the famine of 1877–9, when the poor weakly shawl-weavers died like flies. A full description of shawl-weaving will be found in Moorcroft's *Travels*, vol. ii, chap. iii. The State took Rs. 20 per annum from employers of shawl-weavers per head, an impost of 30 per cent. on the manufactured article, and an export duty of Rs. 7–15 on a long shawl and Rs. 5–13 on a square shawl; but the weavers earned only one or two annas per diem. According to M. Dauvergne, the Kashmīri shawl dates back to the time of the emperor Bābar. The first shawls which reached Europe were brought by Napoleon, at the time of the campaign in Egypt, as a present for the future empress Josephine, and from that time shawls became fashionable. The shawl was made of the finest wool (*pashm*), obtained from the goats of the Tibetan mountains, the best material coming from the Tian Shan (Celestial Mountains) and Ush Tarfan. The finest shawls were manufactured between the years 1865 and 1872. Prices ranged from Rs. 150 to Rs. 5,000 (British rupees). From 1862 to 1870 the export of shawls averaged 25 to 28 lakhs per annum, and when the trade was at its zenith 25,000 to 28,000 persons were engaged in the manufacture.

Industries.

Many of the shawl-weavers who survived the famine of 1877–9 have now found occupation in the manufacture of carpets, and several Europeans carry on this business. The work is of good quality, and the pattern after being designed by the artist is recorded. The description (*tālīm*) contains a series of hieroglyphs, intelligible only to the craft, indicating numbers and colours. The man who reads these calls out to the rows of sickly men and boys who sit at the loom, 'lift five and use red,' or 'lift one and use green'; but neither he nor the weavers have any idea as to what the pattern of the fabric will be. Many persons are employed in embroidering felts or *namdās*. The best are imported from Yārkand, but felts of a somewhat inferior description are manufactured locally. The coloured felts embroidered in Srīnagar are perhaps the most artistic of the local textiles. Calico-printing is extensively carried on. Coarse locally manufactured cloth is used, and the patterns are similar to the shawl designs. The dyes employed are indigo, safflower, and madder.

The lacquered work, or papier mâché, once had a great reputation, but at present the industry is in a somewhat reduced condition. The amount of real papier mâché made from the pulp of paper is small, and the lacquer-workers chiefly apply their beautiful designs to smooth wood. These designs are very intricate, and the drawing is all free-hand. The skill shown by them in sketching and designing is remarkable. The work is known as *kāri-kalamdāni*, as the best specimens of the old work were pen-boxes (*kalamdān*); but a variety of articles, such as tables, cabinets, and trays, are now made, and the richer classes decorate their ceilings and walls. Papier mâché has perhaps suffered more than any other industry from the taste of the foreign purchaser, and copal and other European varnishes are now largely used.

The silver-work is extremely beautiful, and some of the indigenous patterns, the *chinār* and lotus leaf, are of exquisite design. The silversmith works with a hammer and chisel, and will faithfully copy any design that may be given to him. Complaints are very common regarding the quality of the silver put into the work, and some simple system of assay would be a boon, not only to the purchaser but also to the manufacturer.

Perhaps the most effective product is the copper-work. The coppersmith works with a hammer and chisel, and many of the present coppersmiths are men who used once to work in silver. They also work in brass. Their designs are quaint and bold, and they are very ready to adopt any new pattern that may be offered to them. The copper-work of Srīnagar is admirably adapted for electro-plating, and some smiths now turn out a finer kind of article specially for that purpose. A large demand has arisen for beautiful copper trays framed as tables in carved walnut-wood, and the carpenter is now the close ally of the coppersmith. Of the enamel work the enamels on brass are the best, though the enamelled silver-work is very pretty. A development in recent years has been the clever imitation of Tibetan teapots and bowls, and of Yārkand and Kashgar copper vessels. After manufacture, these are buried in the earth or otherwise treated to give an appearance of age.

The woodwork perhaps lacks the finish of Punjab carving, but the Kashmīri carver is second to none in his skill as a designer. He works with a hammer and chisel, and a great deal of the roughness and inequality of his pieces is due to the difficulty of obtaining seasoned walnut-wood. The carving is now much bolder than it was formerly, the patterns are larger and the carving very deep. Beautiful ceilings of perfect design, cheap and effective, are made by a few carpenters, who with marvellous skill piece together thin slices of pine-wood. This is known as *khatamband*. A great impetus has been given to this industry

by the builders of house-boats, and the darker colours of the walnut-wood have been mixed with the lighter shades of the pine. A good specimen of modern woodwork is found in the well-known shrine of Nakshbandi not far from the Jāma Masjid. A few of the *khatamband* ceilings have been introduced into England.

There is a large trade in leather. Hides are prepared in the villages by the Wātals and are then brought to Srīnagar, where they undergo further preparation. The leathern portmanteaux and valises made in Srīnagar stand an amount of rough usage which few English solid leather bags would survive.

The furriers of Srīnagar chiefly depend for their livelihood on the business given to them by sportsmen, who send in skins to be cured. The recent law for the protection of game, under which the sale of skins and horns is prohibited, has curtailed the business of the furriers.

The lapidaries possess very great skill, and are especially proficient as seal-cutters.

Kashmīr was once famous for its paper, which was much in request in India for manuscripts, and was used by all who wished to impart dignity to their correspondence. The pulp from which the paper is made is a mixture of rags and hemp fibre, obtained by pounding these materials under a lever-mill, worked by water-power. Lime and some kind of soda are used to whiten the pulp. The pulp is then placed in stone troughs or baths and mixed with water, and from this mixture a layer of the pulp is extracted on a light frame of reeds. This layer is the paper, which is pressed and dried in the sun. Next it is polished with pumice-stone, and its surface is glazed with rice water. A final polishing with onyx stone is given, and the paper is then ready for use. It is durable and in many ways excellent, but it cannot compete with the cheap mill-paper of India.

The boating industry closely concerns the people of the city. Excluding boats owned by private persons and used for private purposes, there are about 2,400 boats employed in trade and passenger traffic. The greater portion of the grain and wood imported by river is brought in large barges not unlike canal barges. These are towed or poled up-stream and drop down the river with the current. There are two kinds of barge. The larger will carry a cargo of 800 to 1,000 maunds, while the smaller can carry 400 maunds. One of the most common form of boats is the *dunga*, a flat-bottomed boat, about 50 to 60 feet in length, and about 6 feet in width, drawing about 2 feet of water.

Education.

A high school is maintained by the State with an average daily attendance of 326 in 1900–1, and several primary schools are scattered about in the various *muhallas*. Excellent results are said to be attained; but though the quality may be good, the quantity is small.

There is an excellent State hospital in Srīnagar, at which about 11,000 in-patients and 28,000 out-patients are treated in the year, and two branch dispensaries which deal with 32,000 out-patients annually. A *zanāna* hospital was completed in 1899 at a cost of Rs. 40,000.

Medical.

In medical as well as in educational work Srīnagar is fortunate in enjoying as auxiliaries to the State schools and hospitals the noble and unselfish services of the Church Missionary Society. The history of the mission is interesting, and recalls the honoured names of Robert Clark, Elmslie, Maxwell, and Downes. Opposed, despised, and persecuted, these good men stuck bravely to their work; and the small and almost hopeless beginning made in 1865 by Dr. Elmslie, without a habitation and without friends, has grown into a well-equipped force which plays a civilizing part in the lives of the people. Outward opposition has given place to genuine admiration, and in 1893 the present Mahārājā presided at the opening of the women's wards of the mission hospital. The leper asylum has been made over to the care of the mission. At the beginning of 1902 this had 76 patients, and 69 others were admitted during the year. In the same year the Medical Mission treated 14,515 out-patients and 1,151 in-patients, paid 36,969 visits, and performed 3,147 operations. Apart from the work done at the hospital, the missionaries tour in the most remote parts of the State.

Srinagar Town.—Town in Garhwāl District, United Provinces, situated in 30° 13′ N. and 78° 46′ E., on the left bank of the Alaknandā, at an elevation of 1,706 feet above sea-level. Population (1901), 2,091. The old town was founded in the seventeenth century and became the capital of Garhwāl; but it was washed away in 1894 in the flood caused by the bursting of the Gohnā lake. The new town has been built on a higher site, and is well laid out. Srīnagar ranks next to Kotdwāra in importance, and owes its trade chiefly to its position on the pilgrim route. It contains a fine hospital and a police station, and is administered under Act XX of 1856, with an income of about Rs. 1,100. A private school has 198 pupils.

Sringeri.—A *jāgīr* in the west of the Koppa *tāluk* of Kadūr District, Mysore, lying between 13° 22′ and 13° 28′ N. and 75° 17′ and 75° 23′ E., with an area of 44 square miles. Population (1901), 10,656. The *jāgīr* contains one town and 259 villages. The Tunga river runs through it from south-west to north-east, and the country is pure Malnād or highland. The annual rainfall averages 150 inches. Sringeri town is situated in 13° 25′ N. and 75° 19′ E., on the Tunga, 15 miles from Koppa. Population (1901), 2,430. The dominant institution of the place is the *math* established by the great Hindu reformer Sankarāchārya in the eighth century, which is the seat of the Jagad Gurū, the high-priest of the Smārta Brāhmans. Mādhava or

Vidyāranya, the head of the *math* at that time, was instrumental in founding the Vijayanagar empire in 1336, and was its first minister. Sringeri (Sringa-giri, or Rishya-Sringa-giri) is said to have been the place where the Rishi Vibhāndaka performed penance, and where Rishya Sringa, a celebrated character of the Rāmāyana, was born, who grew up to man's estate without having ever seen a woman. He was allured away to the North, and eventually became the priest of Dasaratha, and performed the great sacrifice which resulted in the birth of Rāma. According to an inscription, the tract was granted as an endowment of the *math*, by Harihara, the first king of Vijayanagar, in 1346. Venkatappa Naik of Keladi claims in inscriptions to have rescued the *jāgīr* out of unlawful hands and restored it to the *math* in 1621. The revenue is estimated at Rs. 50,000 a year, which is supplemented by Rs. 12,000 from the Mysore State. A municipality was established in 1888. The receipts and expenditure during the ten years ending 1901 averaged Rs. 2,400. In 1903-4 the receipts rose to Rs. 11,000, and the expenditure to Rs. 10,000.

Srīnivāspur.—North-eastern *tāluk* of Kolār District, Mysore, lying between 13° 12' and 13° 36' N. and 78° 6' and 78° 24' E., with an area of 325 square miles. The population in 1901 was 58,812, compared with 46,463 in 1891. The *tāluk* contains one town, Srīnivāspur (population, 3,153), the head-quarters; and 341 villages. The land revenue demand in 1903-4 was Rs. 1,42,000. The south is drained by the Pālār river and the north by the Pāpaghni. On the north and north-east are ranges of hills connected with the Eastern Ghāts. In the south-east rise the low flat hills marking the Kolār auriferous band.

Srīperumbūdūr.—Town in the Conjeeveram *tāluk* of Chingleput District, Madras, situated in 12° 59' N. and 79° 57' E., on the western trunk road 25 miles west-south-west of Madras city. Population (1901), 5,481. It is important as the birthplace, about A.D. 1016, of Srī Rāmānujāchārya, the great religious reformer of the Vaishnav sect. A shrine to him in the town attracts an immense number of pilgrims from all India. It is executed in the beautiful style of early Vijayanagar architecture, and the sculpture is excellent. Rāmānuja, a Brāhman by birth, was noted even as a boy for his studious habits and meditative reserve. When a youth he went to Conjeeveram to study under Yādava Prakāsa, the great teacher of the Advaita system of thought, which was adopted mostly by the devotees of Siva. But he grew to differ from his master, and, attaching himself to the then rising Vaishnavite creed, wrote commentaries embodying the principles of what is known as the Visishta-Advaita philosophy, or 'qualified non-dualism.' In contradistinction to the professors of the Advaita doctrine, he held that the divine soul and the human soul are not absolutely one, but are

closely connected. According to him, everlasting happiness was not to be obtained by knowledge alone, however profound; a devout observance of public and private worship was likewise essential. His culture and personal charm drew around him a host of disciples; and in his lifetime he founded no less than 700 colleges, and sought to secure the permanence of his system by establishing 89 hereditary priestships, several of which still exist. While returning to Srīrangam from a tour, he was confronted by an edict of the Chola king requiring the signature of all Brāhmans in his dominions to a profession of the Saivite religion. Rāmānuja resisted and fled, and found an asylum with Vittala Deva, the Jain king of Mysore, whom he converted. After twelve years in Mysore, the death of the Chola king enabled Rāmānuja to return to Srīrangam, where he died.

Srīrāmpur.—Subdivision and town in Hooghly District, Bengal. *See* SERAMPORE.

Srirangam.—Town in Trichinopoly District, Madras, situated in 10° 52′ N. and 78° 42′ E., 2 miles north of Trichinopoly city, and almost in the centre of the island formed by the bifurcation of the Cauvery into the two branches known as the Cauvery and the Coleroon. At the western (upper) end of the island is the Upper Anicut, and at the eastern end the Grand Anicut, described in the article on the CAUVERY. The island is about 19 miles in length, and in its widest part about 1½ miles broad, the soil being alluvial and very fertile. It is, however, subject to inundations from the Cauvery and Coleroon, especially at its lower (eastern) end. The trunk road to Madras runs northwards from Trichinopoly across the island, connecting the land on either side by fine bridges. The island (*see* TRICHINOPOLY DISTRICT) played a considerable part in the wars of the eighteenth century.

Srīrangam was made a municipality in 1871, and comprises several villages, of which Srīrangam and Jambukeswaram are the most important. The population, which has doubled in the last thirty years, is (1901) 23,039, of whom as many as 22,834 are Hindus, Musalmāns numbering only 42, and Christians 163. The income and expenditure of the municipality during the ten years ending 1902–3 averaged about Rs. 28,000. In 1903–4 the income was Rs. 33,800, mostly derived from the taxes on land and houses; and the expenditure was Rs. 35,100. The municipality maintains a hospital, which accommodates 24 in-patients and has a maternity ward with four beds. The buildings now in use were repaired and terraced by Rājā Sir Savalai Rāmaswāmi Mudaliyār in 1886 at a cost of Rs. 10,000, the former buildings having been damaged by fire in 1884. Preliminary surveys for a drainage scheme for the place are in progress.

The town is chiefly famous for its great temple dedicated to Vishnu. The temple and the town are indeed almost conterminous, the greater

portion of the houses having been erected inside the walls of the former. The temple is the largest in Southern India, and consists of seven enclosures one within the other, the outermost wall of the seventh measuring 1,024 yards by 840. In the centre of the innermost enclosure is the shrine of Ranganāthaswāmi, who is represented as reclining on the folds of the serpent Adisesha and screened by his hood. The dome over the shrine has been recently repaired and richly gilt. None but Hindus can enter the three inner enclosures. The fourth, in which is the thousand-pillared *mantapam* or hall, measures 412 yards by 283. This hall of a thousand columns measures 450 feet by 130 and contains some 940 pillars, being incomplete in parts. It is the Darbār Hall of the deity during the annual Vaikunta Ekādasi festival, which takes place in December or January. A large *pandal* or covered enclosure is then erected in front of it, and the processional image is brought to it from the inner shrine through the northern entrance of the second enclosure, called the Paramapadavāsal or the 'gate of heaven,' which is only opened on this one occasion in the year. In booths round the *pandal*, which is handsomely decorated, various figures of gods and mythical personages and other articles are exposed for sale. In front of the thousand-pillared *mantapam* is a smaller hall, called Seshagiri Rao's *mantapam*, in which there are some fine carvings in stone[1]. As usual, the temple possesses many jewels, some of which are good specimens of goldsmith's work. The various pieces of armour which cover the idol from head to foot are perhaps the best, the others being of a type familiar at Southern India temples. Several of the oldest were given by Vijayaranga Chokkanātha, Naik of Madura. There is also a gold plate presented by the present King-Emperor when he visited the place as Prince of Wales in 1875. European visitors, on giving sufficient notice, are generally allowed to see the jewels, or, at any rate, some of them, by the courtesy of the trustees.

Over the entrances to the fourth enclosure are three *gopurams* (towers), of which the eastern is the finest. It is known as the *vellai* or 'white' *gopuram* and is 146½ feet in height. There is at present no gate or *gopuram* on the western side of this enclosure. Tradition states that one formerly existed, but that it was blocked up because the people living near used to enter by that way and commit thefts in the temple. The outer three enclosures are crowded with houses and bazars.

Mr. Fergusson points to this temple as the most conspicuous illustration of the way in which many South Indian temples have gradually grown up around a small central shrine. The various stages of circumvallation represent successive increases in the wealth and popularity of the shrine,

[1] Drawings of these and other portions of this temple and of that at Jambukeswaram will be found in the *Journal of Indian Art and Industry*, vol. viii (1899).

and there is a corresponding increase in the size and ornamentation of the outer buildings as compared with those within. It may be added that the temple does not seem to have been completed in the manner intended by the last of its series of builders. The outer wall contains four unfinished *gopurams.* That on the southern side, which is the first seen by visitors from Trichinopoly, is of large proportions and, if completed, would have risen to the height of 300 feet. This unfinished but gigantic structure is perhaps the most impressive object in the whole temple.

Several saints are reputed to have resided here, and the images of some of them are set up in different parts of the enclosure. The Hindu reformer and philosopher Rāmānuja lived and died here early in the twelfth century. The inscriptions on the walls go back to the first half of the tenth century, to the reign of the Chola king Madurai-konda Ko Parākesarivarman, *alias* Parāntaka I; but the greater portion of the temple can hardly have been constructed as early as this. An inscription of Sundara Pāndya recites that he took Srīrangam from a king who is called the moon of Karnāta, and plundered the capital of Kāthaka. A similar incident is recounted in the Tirukkalikkunram and Jambukeswaram inscriptions. The Kāthaka king can hardly refer to a king of Cuttack, the most obvious explanation, but probably describes the noted chieftain Kopperunjinga, who had great power in the Carnatic at this time. The moon of Karnāta was the Hoysala king Someswara (literally the 'god of the moon'), who, having conquered the Chola country, built a city called Vikramapuram 5 miles to the north of Srīrangam. The site of this city is the present Samayapuram. The Sundara Pāndya of the inscription has been identified, by a copperplate grant of Someswara dated in 1253, with Jatāvarman Sundara Pāndya Deva, who ascended the throne in 1250 or 1251. Other inscriptions relate to the Chola, Pāndya, Hoysala, and Vijayanagar dynasties.

About half a mile to the east of the Vaishnav pagoda is another remarkable temple, dedicated to Siva, and known by the name of Jambukeswaram. It is a compound of the words *jambu*, the Sanskrit name of the tree known in Tamil as *nāval* (*Eugenia Jambolana*), and Iswara, a name of Siva. The image of the deity is placed under a *jambu*-tree, which is much venerated and is said to be several hundred years old. The image is also known as one of the five elemental *lingams*, the element in this case being water, which surrounds the *lingam* on all sides. Mr. Fergusson considers that this building far surpasses the Vaishnav temple in beauty and as an architectural object, and thinks that, being all of one design, it was probably begun and completed at one time. There are five enclosures in the building. In the third is a coco-nut grove, in which is a small tank and temple, whither the image from the great Vaishnav pagoda was formerly brought

for one day in the year. This practice has been abandoned, owing to quarrels between Saivites and Vaishnavites. Traces of a wall, which was built in consequence to mark the boundary between Srīrangam and Jambukeswaram, are still visible. In the fourth enclosure, which measures 812 yards by 497, is a large hall with 796 pillars, and to the right of it a little tank with a gallery round it in which are 142 columns. The tank is fed by a perpetual spring. The fifth or outer enclosure contains four streets of houses. Inscriptions seem to show that the temple was in existence about A.D. 1000.

Srīrangavarapukot.—*Zamīndāri tahsīl* and town in Vizagapatam District, Madras. *See* SRUNGAVARAPPUKOTA.

Srīsailam.—Famous temple in the Nandikotkūr *tāluk* of Kurnool District, Madras, situated in 16° 5′ N. and 78° 53′ E. It lies in the midst of malarious jungles and rugged hills on the northernmost plateau of the Nallamalais, overlooking a deep gorge through which flows the Kistna river. The ruined wells and tanks and the remains of walls and ancient buildings which lie around show that the neighbouring country was once prosperous. The place appears to have been inhabited till the fifteenth century, and was deserted after the Musalmān conquest. There are three routes to the temple: that through Atmakūr and Nagaluti in the Nandikotkūr *tāluk*, which is the one most frequently used; that by Bommalapuram in the Mārkāpur *tāluk*; and that across Nīlganga ferry over the Kistna river, which is followed by pilgrims from Hyderābād territory. The temple is 660 feet long by 510 feet broad. The walls are elaborately sculptured with scenes from the Rāmāyana and Mahābhārata. In the centre stands the shrine of Mallikārjuna, the name by which Siva is worshipped here. The temple is under the management of Srī Sankarāchārya, priest of the Pushpagiri *math*, to whom it was handed over by Government about 1841, when the authorities ceased to manage religious institutions. The priest has leased out the revenues and takes no interest in the temple; and the result is that the buildings are in bad order and falling to pieces, and the lessees levy all sorts of contributions from the numerous pilgrims who attend the grand Sivarātri festival in the months of February and March every year. The temple, which was richly endowed in former days, is now very poor, as it was plundered by a band of robbers in the eighteenth century, and the *ināms* attached to it were resumed by the Musalmāns when they obtained possession of the District.

Srīvaikuntam Tāluk.—South-eastern *tāluk* of Tinnevelly District, Madras, lying between 8° 17′ and 8° 48′ N. and 77° 48′ and 78° 10′ E., with an area of 542 square miles. The population rose from 287,603 in 1891 to 321,534 in 1901, the density being nearly 600 persons per square mile. Srīvaikuntam is second only to the Tinnevelly *tāluk*

in the literacy of its inhabitants, and it has the largest Christian community (over 54,000) in the District. It contains an unusually large number of interesting places, chief of which are TIRUCHENDŪR (population, 26,056), a famous Saivite shrine on the coast; KULASEKARAPATNAM (19,898) and KĀYALPATNAM (11,746), two decayed ports with a large population of Musalmān Labbais; SRĪVAIKUNTAM (10,550), the head-quarters; ALVĀR TIRUNAGARI (6,630), which contains two noted Vaishnavite temples; the two smaller towns of SĀTTĀNKULAM (6,953) and SIRUTTONDANALLŪR (6,099); NAZARETH, a centre of native Christians; KĀYAL and KOLKAI, celebrated as the early capitals of the Pāndyan dynasty; and ADICHANALLŪR, the most interesting prehistoric burial-place in Southern India. The number of villages is 134. The demand for land revenue and cesses in 1903-4 amounted to Rs. 6,30,000. The soils consist of black cotton soil in the north; red sand and red clay to the south and west; the *teri*, or blown sand, founded upon the sandstone and claystone ridges parallel to the coast; and, lastly, the rich alluvial belt of the Tāmbraparni Valley. Four main channels, two on either bank of the river leading from the Marudūr and Srīvaikuntam dams, irrigate the *tāluk* directly, besides supplying a large series of tanks. To the south the country is covered with thousands of palmyra palms.

Srīvaikuntam Town ('Vishnu's holy heaven').—Head-quarters of the *tāluk* of the same name, in Tinnevelly District, Madras, situated in 8° 38′ N. and 77° 55′ E., on the left bank of the Tāmbraparni river, 18 miles below Tinnevelly town. It is a Union, with a population (1901) of 10,550. It contains a fine and richly endowed Vaishnav temple, the annual festival at which attracts large crowds. An enclosure in the town surrounded by mud walls and known as the 'fort' is occupied by a peculiar subdivision of the Vellāla caste, called the Kottai ('fort') Vellālas, who keep their womenkind strictly secluded within the four walls of the enclosure and marry only within their own subdivision. Their number, as might be expected, is dwindling in consequence of this restriction. There is a fine iron bridge over the dam across the Tāmbraparni at Srīvaikuntam.

Srīvardhan.—Town in the State of Janjīra, Bombay, situated in 18° 4′ N. and 73° 4′ E., about 12 miles south of Janjīra village. It appears in the writings of early European travellers as Ziffardan. Population (1901), 5,961. In the sixteenth and seventeenth centuries, under Ahmadnagar and afterwards under Bijāpur, Srīvardhan was a port of consequence. It has still a considerable trade, which consists chiefly of betel-nuts of a superior kind, highly valued at Bombay. An annual fair is attended by about 3,000 persons. The income of the municipality is about Rs. 3,000.

Srīvilliputtūr Tāluk.—North-western *tāluk* of Tinnevelly District,

Madras, lying between 9° 17′ and 9° 42′ N. and 77° 20′ and 77° 51′ E., with an area of 585 square miles. The population in 1901 was 205,745, compared with 190,517 in 1891, or a little more than 350 persons per square mile. The *tāluk* contains four towns, SRĪVILLIPUTTŪR (population, 26,382), the head-quarters, RĀJAPĀLAIYAM (25,360), SETTŪR (14,328), and VARTTIRĀYIRUPPU (13,131); and 94 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 4,11,000. The soils in rather more than half, including the villages lying to the west, belong to the red clay or loam and sand series, while the easterly villages form a portion of the cotton soil plain. The country to the west undulates considerably, owing to the numerous streams which descend from the Western Ghāts and supply a large number of tanks.

Srīvilliputtūr Town (or Nāchiyārkovil).—Head-quarters of the *tāluk* of the same name in Tinnevelly District, Madras, situated in 9° 30′ N. and 77° 37′ E., 24 miles from the Sāttūr railway station on the South Indian Railway. It is a famous place of pilgrimage, and contains a large Vaishnav temple with a high tower and handsome sculptures. Tirumala Naik of Madura (1623–59), the most famous of his line, built for himself a small palace here, in which the *tāluk* offices are now located. The town was constituted a municipality in 1894. The municipal receipts and expenditure during the eight years after the council was constituted averaged Rs. 16,900 and Rs. 16,800 respectively. In 1903–4 the income, most of which was derived from the house and land taxes and tolls, was Rs. 19,000 and the expenditure Rs. 17,000. The population (1901) is 26,382, consisting of 24,943 Hindus, 933 Christians, and 506 Musalmāns. A large number of the Brāhmans are Vaishnavites, and several of them depend on the temple for their livelihood.

Srungavarappukota Tahsīl.—*Tahsīl* in Vizagapatam District, Madras, lying between 17° 54′ and 18° 17′ N. and 82° 55′ and 83° 20′ E., partly on and partly below the Eastern Ghāts, with a total area of 438 square miles. The hill country in it is included in the Agency tract. The population in the ordinary portion is 137,724 and in the Agency tract 4,293, making a total of 142,017 (1901), compared with 133,343 in 1891. The *tahsīl* contains one town, SRUNGAVARAPPUKOTA (population, 5,862), the head-quarters; and 266 villages. The demand for land revenue and cesses in 1903–4 was Rs. 17,200. The ordinary portion presents no features of interest. The small portion in the Agency tract is very hilly, rising to a height of 5,200 feet in Gālikonda ('windy hill'). At Anantagiri (about 2,800 feet) is a coffee plantation managed by the Vizianagram estate, and a bungalow. The hills are as a rule well wooded, the lower slopes being 'reserved' by the Vizianagram estate, but the higher

ranges are usually open rolling savannahs covered with long 'bison grass.' Between Gālikonda and Anantagiri lies Harris Valley, the scene of an attempt made about fifty years ago to establish a sanitarium for the troops stationed in the District, which was rendered a failure by malarial fever, as the site of the camp was badly chosen. Had the men been stationed 1,000 feet higher up the hill the experiment might have proved successful.

Srungavarappukota Town.—Head-quarters of the *tahsīl* of the same name in Vizagapatam District, Madras, situated in 18° 7′ N. and 83° 8′ E., at the foot of the Ghāts. Population (1901), 5,862.

Suādi.—Head-quarters of Gāngpur State, Bengal, situated in 22° 8′ N. and 84° 2′ E., on the Ib river. Population (1901), 2,185. Suādi contains the residence of the chief, a court-house, a jail with accommodation for 50 prisoners, a school, and a dispensary with accommodation for in-patients.

Suālkuchi.—Trade centre in Kāmrūp District, Eastern Bengal and Assam. *See* SOĀLKUCHI.

Suar.—North-western *tahsīl* in the State of Rāmpur, United Provinces, lying between 28° 53′ and 29° 10′ N. and 78° 55′ and 79° 14′ E., with an area of 191 square miles. Population (1901), 104,667. There are 255 villages and two towns: TĀNDĀ (population, 7,983) and Suār (2,738), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,81,000, and for cesses Rs. 46,000. The density of population, 548 persons per square mile, is below the State average. A large portion of the *tahsīl* lies in the *tarai* or moist submontane area. In 1903–4 the area under cultivation was 114 square miles, of which 14 were irrigated, chiefly by small canals drawn from the numerous streams which cross the *tahsīl*.

Subankhāli.—Village in Mymensingh District, Eastern Bengal and Assam. *See* SUBARNAKHĀLI.

Subankhātā.—Village in the Gauhāti subdivision of Kāmrūp District, Eastern Bengal and Assam, situated in 26° 47′ N. and 91° 25′ E. A fair is held here in the cold season, which is largely attended by the Bhotiās, who bring down ponies, blankets, wax, and lac for sale, and purchase cotton cloth and other articles. A detachment of military police, consisting of 31 officers and men, is stationed at Subankhātā during the cold season.

Subansiri.—A great river in the north-east of Assam, which contributes to form the main stream of the Brahmaputra. Its source has never been explored; but it is supposed to rise far up among the mountains of Tibet, and to flow for a long distance in an easterly direction before it turns south to break through the northern mountain barrier of the Assam Valley. It enters Lakhimpur District from the Mīri Hills through a gorge of great beauty, and, still flowing south,

divides the subdivision of North Lakhimpur into two almost equal portions. Before it reaches the Brahmaputra, it forms, together with the channel of the Luhit, the large island known as the MĀJULI *char*, and finally empties itself into the main stream, at the western end of Sibsāgar District. In the hills the bed of the river is greatly broken up by rocks and rapids; but it is navigable by small steamers in the plains. Boats of 4 tons burden can proceed to the frontier of Lakhimpur at all seasons of the year, and small steamers ply twice a week to Badati in the cold season, and twice a month to Bordeobām during the rains. Tea, rubber, mustard, potatoes, pulse, rice, canes, and timber are brought down the river, and gold can be washed from its sands, though all attempts to find the matrix of these deposits have hitherto proved fruitless. The river is too wide to bridge, except at an enormous cost, but it is crossed by eleven ferries.

Subarnakhāli.—Village in the Tangail subdivision of Mymensingh District, Eastern Bengal and Assam, situated in 24° 33′ N. and 89° 49′ E., on the Jamunā river, 44 miles west of Nasīrābād, with which place and Jamālpur it is connected by tolerably good roads. Population (1901), 1,317. A considerable export and import trade in jute is carried on.

Subarnarekhā ('the streak of gold').—River of Bengal. Rising 10 miles south-west of Rānchī town, in Rānchī District, in 23° 18′ N. and 85° 11′ E., it flows towards the north-east, leaving the main plateau in a picturesque waterfall called Hundrughāgh. From this point it forms the boundary with Hazāribāgh District, its course being eastwards to the tri-junction point with Mānbhūm District. From this point the river bends southwards into Singhbhūm, then passes into the State of Mayūrbhanj, and afterwards enters Midnapore District from the north-west. It traverses the jungle in the western tract of this District till it reaches Balasore, through which it flows in a tortuous southern course, with gigantic windings east and west, until it finally falls into the Bay of Bengal, in 21° 34′ N. and 87° 21′ E., after a course of 296 miles, having drained an area of 11,300 square miles. The chief tributaries of the Subarnarekhā in Chotā Nāgpur are the Kānchī and Karkārī, both joining it from the west. The river is navigable by country craft for about 16 miles from its mouth, up to which point it is also tidal, and the bed is studded with islands. During the rains rice boats of 2 tons burden make their way into Mayūrbhanj. The bordering country is cultivated to within a few miles of the sea in the cold season. The Subarnarekhā is fordable only at places within Balasore District; it is embanked here in its lower reaches.

Subāthu.—Hill cantonment in Simla District, Punjab. *See* SABĀTHU.

Subrahmanya (or Pushpagiri).—Village in the Uppinangadi *tāluk*

of South Kanara District, Madras, situated in 12° 41′ N. and 75° 36′ E., at the foot of a celebrated mountain, the correct name of which is Pushpagiri, on the border of that District and Coorg. The mountain, which is two-pointed, precipitous, and of peculiar shape, is one of the most prominent heights in these parts, resembling, as seen from Mercāra, a gigantic bullock hump. Elevation, 5,626 feet above the sea. On its summit are many ancient stone cairns. In the village is an old and famous Saivite temple, and it is one of the chief centres of serpent-worship in Southern India. To the cattle fair held at the time of the annual festival in November–December it has been estimated that 50,000 cattle are usually brought, mainly from Mysore.

Suburbs of Calcutta.—*See* CALCUTTA, SUBURBS OF.

Suchindram.—Village and shrine in the Agastīswaram *tāluk* of Travancore State, Madras, situated in 8° 9′ N. and 77° 27′ E., 8 miles north-west of Cape Comorin on the high road to Trivandrum. Population (1901), 2,470. In the centre of the village is the famous shrine of Sthānumalaya Perumāl, a Saivite manifestation of the Hindu Triad, which is accorded the first rank among State shrines by the Travancore government, and is visited by thousands of worshippers during the annual car festival.

Sudāmda Dhāndhalpur.—Petty State in KĀTHIĀWĀR, Bombay.

Sudāsna.—Petty State in MAHĪ KĀNTHA, Bombay.

Sudhārām.—Head-quarters of Noākhāli District, Eastern Bengal and Assam, situated in 22° 49′ N. and 91° 7′ E., on the right bank of the Noākhāli khāl. It is named from Sudhārām Muzumdār, an early settler, who dug a fine tank still in existence. Population (1901), 6,520. Sudhārām was constituted a municipality in 1876. The income and expenditure during the decade ending 1901–2 averaged Rs. 8,000. In 1903–4 the income was Rs. 12,000, of which Rs. 3,000 was derived from a tax on persons (or property tax) and Rs. 5,000 from a conservancy rate; and the expenditure was Rs. 11,700. The town contains the usual public offices; the jail has accommodation for 149 prisoners.

Sugh (*Srughna*).—Village in the Jagādhri *tahsīl* of Ambāla District, Punjab, situated in 30° 9′ N. and 77° 23′ E., in a bend of the old bed of the Jumna, now a part of the Western Jumna Canal, close to Jagādhri and Būriya towns. Population (1901), 378. Srughna is mentioned by Hiuen Tsiang, the Chinese pilgrim of the seventh century, as a town 3½ miles in circuit, the capital of a kingdom and the seat of considerable learning, both Buddhistic and Brāhmanical. He describes the kingdom of Srughna as extending to the mountains on the north, and to the Ganges on the east, with the Jumna flowing through the midst of it. The capital he represents as having been partly in ruins; but General Cunningham thought that there is

evidence in the coins found on the spot to show that it was occupied down to the time of Muhammadan conquest. He thus describes the extent and position of the ruins:—

'The village of Sugh occupies one of the most remarkable positions that I have seen during the whole course of my researches. It is situated on a projecting triangular spur of high land, and is surrounded on three sides by the bed of the old Jumna, which is now the Western Jumna Canal. On the north and west faces it is further protected by two deep ravines, so that the position is a ready-made stronghold, which is covered on all sides, except the west, by natural defences. In shape it is almost triangular, with a large projecting fort or citadel at each of the angles. The site of the north fort is now occupied by the castle and village of Dayālgarh. The village of Amadalpur stands on the site of the south-east fort, and that of the south-west is unoccupied. Each of these forts is 1,500 feet long and 1,000 feet broad, and each face of the triangle which connects them together is upwards of half a mile in length, that to the east being 4,000 and those to the north-west and south-west 3,000 feet each. The whole circuit of the position is therefore 22,000 feet or upwards of 4 miles, which is considerably more than the 3½ miles of Hiuen Tsiang's measurement. But as the north fort is separated from the main position by a deep sandy ravine, called the Rohāra nullah, it is possible that it may have been unoccupied at the time of the pilgrim's visit. This would reduce the circuit of the position to 19,000 feet or upwards of 3½ miles, and bring it into accord with the pilgrim's measurement. The small village of Sugh occupies the west side of the position, and the small town of Būriya lies immediately to the north of Dayālgarh.'

Suhagpore.—*Tahsīl* and village in Rewah State, Central India. *See* SOHĀGPUR.

Suhmā.—Ancient kingdom of Bengal. *See* TĀMRALIPTA.

Suigām.—Petty State in the Political Agency of Pālanpur, Bombay. *See* PĀLANPUR AGENCY.

Sui Vehār.—Site of a ruined Buddhist tower in the Bahāwalpur State, Punjab, situated in 29° 18′ N. and 71° 34′ E., 6 miles from Samasata station on the North-Western Railway. An inscription found here is dated in the eleventh year of Kanishka's reign.

[*Journal, Asiatic Society, Bengal*, vol. xxxix, pp. 65–70; *Indian Antiquary*, vol. x, pp. 324–31.]

Sūjāngarh.—Head-quarters of the *nizāmat* and *tahsīl* of the same name in the State of Bīkaner, Rājputāna, situated in 27° 42′ N. and 74° 29′ E., about 72 miles south-east of Bīkaner city and within half a mile of the Mārwār border. Population (1901), 9,762. The old name of the place was Harbujī-kā-kot or the fort of Harbujī, a Rājput hero; and the present town was founded by Mahārājā Sūrat Singh (1788–1828), being named after Sūjān Singh, the twelfth chief of Bīkaner. The fort, which is about 200 feet square, with walls from

5 to 6 feet in thickness, is said to have been built by the Thākur of Sāndwa, who once owned the place, and whose estate is now situated a little to the west, and was altered and improved by Sūrat Singh. The town contains several fine houses belonging to wealthy traders; a substantial bungalow which was occupied from 1868 to 1870 by a British Political officer specially deputed to put down dacoity, which was very rife on the triple border of Bīkaner, Jaipur, and Mārwār; a combined post and telegraph office, a jail with accommodation for 66 prisoners, an Anglo-vernacular school attended by 90 boys, and a hospital with accommodation for 7 in-patients. About 6 miles to the north-west is the Gopālpura hill, 1,651 feet above sea-level, or about 600 above the surrounding plain; and legend says that where the village of Gopālpura now stands there was in old days a city called Dronpur, built by and named after Drona, the tutor of the Pāndavas. Near Bīdāsar, a little farther to the north, a copper-mine was discovered about the middle of the eighteenth century, and was worked for a short time, but the ore was not rich enough to repay expenses. The mine is, however, now being professionally examined. The Chhāpar salt lake, 8 miles north of the town, is no longer worked. The Sūjāngarh *tahsīl* contains 151 villages, almost all of which are held in *jāgīr* by Bīdāwats or Rāthor Rājputs descended from Bīda, the brother of Bīka, the founder of the State. Indeed, almost the whole of this tract was taken by Bīda from the Mohil Rājputs, a branch of the Chauhāns, and it is often called Bīdāwati.

Sujānpur.—Town in the Pathānkot *tahsīl* of Gurdāspur District, Punjab, situated in 32° 19′ N. and 75° 37′ E., 23 miles north-east of Gurdāspur town, and 5 miles from Pathānkot on the North-Western Railway. Population (1901), 5,687. It has a considerable shawl-making industry, and is a local centre for the disposal of agricultural produce. The Punjab Sugar Works and Carbonic Acid Gas Factory, which employed 117 hands in 1904, produces sugar, rum, and carbonic acid for aerated waters. Wraps of wool and cotton are made in the town. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 5,600. In 1903–4 the income was Rs. 5,500, chiefly from octroi; and the expenditure was Rs. 5,000. It maintains a vernacular middle school and a dispensary.

Sujānpur Tīra.—Village in the Hamīrpur *tahsīl* of Kāngra District, Punjab, situated in 31° 50′ N. and 76° 31′ E., on the Beās. Population (1901), 5,267. The place derives the second part of its name from the Tīra or 'palace' commenced by Abhāya Chand, the Katoch king of Kāngra, in 1758. His grandson, Sujān Chand, founded the town, and Sansār Chand, the great Katoch ruler, completed it and held his court here. The site is picturesque, with a fine parade-ground

and grassy plain surrounded by trees; but the palace, a highly finished building of regal proportions, has fallen into disrepair since the Katoch family took up its residence in LAMBĀGRAON.

Sujāwal.—*Taluka* in Karāchi District, Sind, Bombay, lying between 24° 27′ and 24° 53′ N. and 68° 1′ and 68° 18′ E., with an area of 267 square miles. Population rose from 29,501 in 1891 to 33,251 in 1901. There are 65 villages, but no town. The land revenue and cesses amounted in 1903–4 to Rs. 1,10,000. Sujāwal is the head-quarters. The *tāluka* lies on the left bank of the Indus, which forms its western boundary. The chief feature is a wide expanse of perennial marshes, forming a chain of depressions running from north and west to south as far as the Gungro canal. Elsewhere, the soil is the usual alluvial loam deposited by the Indus. Irrigation is derived either direct from the Indus or from the Pīnjari canal; and the most important crops are rice, *bājra*, *mūng*, and gram.

Sukesar.—Mountain in Shahpur District, Punjab. *See* SAKESAR.

Suket.—Native State in the Punjab, under the political control of the Commissioner, Jullundur Division, lying in the Himālayas, between 31° 13′ and 31° 35′ N. and 76° 49′ and 77° 26′ E., north of the Sutlej river, which separates it from the Simla Hill States. It has an area of 420 square miles, and contains two towns and 28 villages. The population in 1901 was 54,676, of whom 54,005 were Hindus. The estimated revenue is 1·1 lakhs, of which Rs. 11,000 is paid as tribute to the British Government. Part of the land revenue is still realized in kind. Suket included the territory which now forms the Mandī State until about 1330, when a distant branch of the ruling family assumed independence. The separation was followed by frequent wars between the two States. The country eventually fell under Sikh supremacy, which was exchanged for that of the British Government by the Treaty of Lahore in 1846; and in that year full sovereignty was conceded to the Rājā, Ugar Sen, and his heirs. A *sanad* conferring the right of adoption was granted in 1862. Rājā Ugar Sen died in 1875, and was succeeded by his son, Rudra Sain, who was born about 1828. Rājā Rudra Sain was deposed in 1878 in consequence of misgovernment, and was succeeded in 1879 by his son, Dusht Nikandan Sain, during whose minority the administration was carried on by a native superintendent, assisted by a council. The Rājā came of age in 1884, and now administers the State himself. He receives a salute of 11 guns. A small force of 23 cavalry and 63 infantry is maintained.

Sukkur District.—District in Sind, Bombay, lying between 27° 5′ and 28° 26′ N. and 68° 15′ and 70° 14′ E., with an area of 5,403 square miles. It is bounded on the north by the Upper Sind Frontier District and the Bahāwalpur State of the Punjab; on the east by the States of Bahāwalpur and Jaisalmer; on the south by Khairpur State

and Lārkāna District; and on the west by the Lārkāna and Upper Sind Frontier Districts. Until August, 1901, Sukkur formed part of Shikārpur District, which consisted of 14 *tālukas*. Seven *tālukas* were then detached to form the District of Lārkāna, and the name of the remaining District was changed from Shikārpur to Sukkur. The general aspect is that of a vast alluvial plain, broken only at Sukkur and Rohri by low limestone hills, which tend to preserve a permanent bank for the Indus at those places. The Indus once flowed past these hills near the ancient town of Aror, and was diverted into its present channel through the Bukkur hills by some natural convulsion. Large patches of salt land, known as *kalar*, occur frequently, especially in the upper part of the District; and towards the Jacobābād frontier barren tracts of clay and ridges of sandhills, covered with caper and thorn jungle, constitute a distinctive feature in the landscape. The desert portion of the Rohri subdivision, known as the Registān, possesses extensive sandhills, bold in outline and often fairly wooded.

Physical aspects.

The Indus alluvium occupies most of the District. The town of Sukkur is built on a low hill of Kīrthar limestone, identical with the Spīntangi limestone of Baluchistān. The same rock forms a range of hills east of the Indus. A boring made at Sukkur in the hope of discovering oil penetrated through a thickness of shales and limestones greatly exceeding 1,000 feet, beneath the Spīntangi; these lower rocks are lithologically similar to the Ghāzij of Baluchistān, which occupies the same relative position.

Besides the common vegetation of Sind, the mango, mulberry, apple, pomegranate, and date grow freely; among timber trees are the *pipal*, *nīm*, *ber*, *siras*, *tāli*, *bahān*, *babūl*, and *kandi*. The bush of Rohri jungle consists principally of tamarisks, and reed grasses are abundant; while, as in all parts of Upper Sind, the *kirar*, *ak*, and *pan* are ubiquitous.

The wild animals found are the hyena, hog, wolf, fox, jackal, gazelle, and hog deer. Lynx are occasionally met with in the Rohri subdivision. The birds and water-fowl are those common to Sind. Crocodiles are common in the Eastern Nāra.

The climate is hot and dry, with a remarkable absence of air currents during the inundation season; and it is, in consequence, very trying to a European constitution. The hot season commences in April and ends in October; it is generally ushered in by violent dust-storms; the cold season begins in November and lasts till March. The maximum, minimum, and mean temperatures in the shade are on an average 120°, 61°, 81°. The transition period from the hot to the cold season is very sudden at Rohri. The annual rainfall at Sukkur town averages only 4·4 inches, occurring irregularly in the cold season and during the south-west monsoon.

History.

The history of the Upper Sind Districts has been given in the historical survey of the province of SIND. Ruled until the Muhammadan invasion of 712 by a Brāhman dynasty of Aror (or Alor), 5 miles from the modern town of Rohri, this portion of Sind was for some time a dependency of the Ummayid Khalīfs and the Abbāsids. Conquered by Mahmūd of Ghazni in 1025, the District passed a few years later to the Sūmra dynasty, and then to the Sammā and Arghūn rulers of Sind. Under the emperors of Delhi, a Sindī tribe, the Mahars, asserted themselves by driving out the Jatoi tribe of Baloch who were settled on the western bank of the Indus, but were themselves displaced some years later by the powerful Daudputras, another Sindī tribe, who, led on by their Pīr, Sultān Ibrāhīm Shāh, inflicted a severe defeat on the Mahars, sacked their town of Lakhi, and founded a new capital for Upper Sind at SHIKĀRPUR. In the eighteenth century, the Kalhora chiefs held sway over the Upper Sind Districts till the Afghān invasion in 1781. Between 1809 and 1824, their successors, the Tālpur Mīrs, recovered Būrdika, Rūpar, and Sukkur from the Durrāni kingdom, and finally captured Shikārpur, in time to prevent that town falling into the hands of the Sikhs under General Ventura. In 1833, during the Tālpur rule, Shāh Shujā, the dethroned Afghān monarch, made an expedition into Upper Sind to recover his lost territory. He marched with a force via Bahāwalpur towards Shikārpur, and gained a victory which resulted in the payment to him by the Mīrs of 4 lakhs, and Rs. 50,000 for his officers of state, while 500 camels were made over for the king's use. The Shāh subsequently marched on his expedition against Kandahār; but, being defeated by Dost Muhammad, he retreated to Sind and proceeded to Hyderābād, where he obtained sufficient money from the Mīrs to enable him to return to Ludhiāna in the Punjab.

In 1843, on the conquest of the province by the British, all northern Sind, with the exception of that portion held by the Khairpur Mīr, Alī Murād Tālpur, was formed into the Shikārpur Collectorate and the Frontier District. In the previous year (1842), the towns of Sukkur, Bukkur, and Rohri had by treaty been ceded to the British in perpetuity. In 1851, Mīr Alī Murād Tālpur, of Khairpur, was after a full and public inquiry convicted of acts of forgery and fraud, in unlawfully retaining certain lands and territories which belonged of right to the British Government. The forgery consisted in his having destroyed a leaf of the Korān in which the Naunāhar treaty, concluded in 1842 between himself and his brothers, Mīrs Nasīr and Mubārak Khān, was written, and having substituted for it another leaf, in which the word 'village' was altered to 'district,' by which he fraudulently obtained possession of several large districts instead of villages of the same

name. On January 1, 1852, the Governor-General of India (the Marquis of Dalhousie) issued a proclamation depriving the Mīr of the tracts wrongfully retained, and degrading him from the rank of Rais (or lord paramount). Of the area so confiscated, Ubauro, Būldika, Mīrpur, Saidābād, and other parts of Upper Sind on the left bank of the Indus, now forming the greater part of the Rohri subdivision, were added to Shikārpur District, which in 1901 was divided into Sukkur and the new District of Lārkāna.

The principal antiquities are the ruined town and fort of AROR and the old stronghold of Māthelo. The latter, situated on rising ground 7 miles south-east of Ghotki railway station, is said to have been founded by a Rājput 1,400 years ago. In the old Hindu city of Vijnot, 4 miles south of Reti railway station, are found carved slabs, brick foundations, &c. In the vicinity are the old sites of Ther Sarwahi and Pattan Minār. The principal Musalmān remains worthy of note are the Jāma Masjid and War Mubārak of Rohri and Pīr Musan Shāh's Masjid at Ghotki. An ancient mosque at Ubauro is ascribed to the middle of the sixteenth century. Hakrah, about 2½ miles from Rohri, contains the ruins of an ancient town.

Population.

The area now constituting the District had in 1891 a population of 474,477. In 1901 the number had increased to 523,345, or by 10 per cent., dwelling in 5 towns and 606 villages. The *tāluka* distribution is shown in the following table:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Shikārpur	492	1	88	108,097	220	+ 24	11,433
Naushahro Abro	408	1	87	71,036	147	+ 7	3,018
Sukkur	302	1	54	94,015	309	+ 13	4,303
Rohri	1,497	1	69	85,089	58	+ 5	2,353
Ghotki	518	1	129	72,019	139	+ 6	1,234
Mīrpur Māthelo	1,720	...	100	49,991	29	+ 4	440
Ubauro	466	...	79	43,098	92	+ 5	971
District total	5,403	5	606	523,345	97	+ 10	23,752

Hindus form 27 per cent. of the total, and Musalmāns 72 per cent. The density is 97 persons per square mile, the Mīrpur Māthelo *tāluka* being the least thickly populated, owing to its containing wide tracts of uncultivable desert. The towns are SHIKĀRPUR, SUKKUR, ROHRI, and GHOTKI. The ordinary language is Sindī, spoken by 93 per cent. of the population. Baluchī and Siraikī are also spoken.

The Hindus of the District are, with few exceptions, Lohāno traders, a few Bhīls being found in Mīrpur Māthelo. Among Musalmāns,

Baloch number 75,000, the principal tribes being the Burdis, Chandias, Jatois, Lasharis, and Marris. The Mahars, who once owned a great portion of the District, number 11,388, while the Sūmras (23,000), Sammās (106,000), and the fishing caste of Muhānas (14,000), are the only other divisions of numerical importance. Arabs, including Kalhoras, are represented by 29,000. The Dahars of Khairpur Daharki in the Ubauro *tāluka*, formerly Hindus, who came from Tonk Jodah near Delhi in the eleventh century and became converts to Islām, are an interesting section of the Musalmān population. Details of the proportion of the population supported by different occupations are not available for Sukkur District. In the old Shikārpur District agriculture supported 58 per cent., industries 31 per cent., and commerce 2 per cent.

Of 450 Christians in 1901, 51 were natives, mostly Roman Catholics. Two missions are at work in the District: namely, the Punjāb-Sind branch of the Church Missionary Society, which commenced work in Sukkur in 1885; and a branch of the Church of England Zenāna Mission, established in 1889, which maintains two Hindu girls' schools, a Muhammadan girls' school, an English school for boys and girls, a female dispensary, and an orphanage for boys.

Agriculture.

The soils in the Rohri subdivision are in some places very rich. The stiff heavy soil saturated with moisture, known as *sailābi*, is found chiefly in the Shikārpur subdivision. It requires no water from seedtime to harvest.

The total cultivable land is estimated at 2,726 square miles, of which 1,106 are occupied. The chief statistics of cultivation in 1903 are shown below, in square miles:—

Tāluka.	Total.	Cultivated.	Irrigated.	Waste.	Forests.
Shikārpur	494	243	122	153	46
Naushahro Abro	401	180	109	78	69
Sukkur	300	143	88	17	82
Rohri	1,496	515	79	922	21
Ghotki	519	175	63	140	126
Mīrpur Māthelo	1,721	189	85	121	23
Ubauro	469	139	59	188	30
Total	5,400*	1,584	605	1,619	397

* This differs from the area shown in the Census of 1901, being based upon more recent information.

The principal crops, with the area under each, are rice (87 square miles), wheat (249), *jowār* (262), *bājra* (37), pulses, chiefly *lang* and gram (67), and oilseeds (47 square miles). About half of the total area under rice is in Naushahro Abro. Wheat is grown mainly in Rohri and Ghotki. Cotton, fruits, and vegetables are also extensively grown. Large advances have been made under the Land Improve-

ment and Agriculturists' Loans Acts, amounting during the decade ending 1903–4 to more than 7½ lakhs, of which 1·3 lakhs was advanced in 1899–1900, 1½ lakhs in 1902–3, and 1·4 lakhs in 1903–4.

Owing to the extension of irrigation, a large amount of land has been brought under cultivation during the last twenty-five years. Rice is more largely cultivated, and ground-nuts are being introduced as an alternative crop to *jowār* with considerable success.

The domestic animals comprise camels, horses, buffaloes, bullocks, sheep, goats, mules, and donkeys. The camels are mostly imported from Jaisalmer and Thar and Pārkar, while good ponies of medium height are procurable in all parts of the District. Most of the animals which change hands at the annual Shikārpur horse show come from Jacobābād or from across the frontier. Mule-breeding is becoming popular, most of the animals being bred from Government donkey stallions.

Of the total area cultivated, 605 square miles, or 39 per cent., were irrigated in 1903–4. The various classes of irrigation sources are Government canals (141 square miles), private canals (408 square miles), wells (8 square miles), and other sources (47 square miles). Irrigation is also effected in some parts by *lets* or inundations of the Indus, which are a source of fertility in the Rohri subdivision. In other parts they are apt to be excessive, and protective embankments have been erected in many villages to prevent the wholesale destruction of crops. The chief canals, all of which are fed by the Indus, are the Sind Canal, irrigating 166 square miles, Begāri (78), Sukkur Canal (53), Nāra Supply Channel (13), and Mahi Wah (74). The total cultivable area commanded by the irrigation works is 1,096 square miles.

The forests of Sukkur cover an area of about 400 square miles, and are valuable only as fuel and timber reserves. They fringe the banks of the Indus and are in charge of a divisional Forest officer. The important trees are the *pīpal*, *nīm*, *ber*, *siras*, *tāli*, *bahān*, *babūl*, and *kandi*. The bush jungle consists for the most part of tamarisk. The forest receipts in 1903–4 amounted to Rs. 94,000.

The manufactures include earthenware, metal vessels, coarse cotton cloth, and leathern articles. The towns of Ghotki and Khairpur Daharki are noted for their manufactures of pipe-bowls, snuff-boxes, scissors, and cooking pots. *Tasar* silk is manufactured at Rohri. The former trade through the Bolān Pass has almost entirely ceased, goods from Afghānistān and Central Asia taking the railway route. Sukkur and Shikārpur are the only two important trade centres. The former has a large trade by rail and boat with the Punjab in wheat, timber, iron, and piece-goods. The traders of Shikārpur have direct dealings with

Trade and communications.

Afghānistān, Bahrein, Cutch, Constantinople, China, and Japan in carpets, pearls, silks, silver-work, and fancy work. Both towns carry on a large import trade in wool from Afghānistān.

Besides the trunk roads which connect Sukkur with the adjoining Districts of Upper Sind, Lārkāna, Hyderābād, and Karāchi, and with the Native States of Khairpur and Bahāwalpur, the North-Western Railway runs through the District on both banks of the Indus, with a branch from Sukkur towards Quetta. The new line, styled the Kotri-Rohri Railway, on the left bank of the Indus, is an addition made in the last decade. The Indus is also a convenient and cheap means of water communication, and bears large numbers of country boats. The total length of metalled roads outside the municipal limits of Sukkur and Shikārpur is 8 miles, and of unmetalled roads 1,370 miles. They are all maintained by the local authorities. The chief roads are the Hyderābād-Multān road, running north for 73 miles, the Sukkur-Jacobābād road (38 miles), and the road from Rohri to Khairpur (16 miles). Avenues of trees are maintained on these three roads.

Administration.

The *tālukas* are for administrative purposes grouped into three subdivisions—Rohri, Mīrpur, and Shikārpur—in charge of two Assistant Collectors and a Deputy-Collector. The Collector is *ex-officio* Political Agent of the Khairpur State.

A District and Sessions Judge and a Joint Judge sit at Sukkur; and the civil judicial staff includes 5 Subordinate Judges. The District and Sessions Judge exercises jurisdiction also over Lārkāna District. Rohri possesses a resident magistrate; and both Shikārpur and Sukkur have city magistrates. The Subordinate Judges exercise jurisdiction in suits of Rs. 5,000 in value or less within local limits. The first-class Subordinate Judge at Sukkur can hear suits of any value within the limits of Sukkur, Lārkāna, and Jacobābād Districts, excepting suits against Government. The District and Joint Judges hear suits and appeals of any value arising within the three Districts. Theft and cattle-stealing are the commonest forms of crime.

In the Rohri subdivision the *maurūsi* tenure is found, under which the tenants possess an hereditary right of occupancy. This tenure resembles the *aforament* prevailing in parts of Portugal and the *beklemreght* in the province of Gröningen described by M. de Lavaleye in the first volume of the *Cobden Club Essays*. The tenant pays a quit-rent to the proprietor, which differs in different villages, but seldom exceeds 6 or 8 annas per acre, and cannot be enhanced. The settlement of the Government demand is made direct with the tenant, who is entered in the register as an occupant, the amount of quit-rent payable to the proprietor being also recorded. Other tenures are the *zamindāri* and *pattadāri*. The former is equivalent to a charge on cultivation, payable in cash or in kind to the *zamīndār*. The latter has arisen out of grants

under leases of reduced assessment, made by the Afghān government to Pathān settlers, and is now equivalent to the assignment of a fixed proportion of the revenue to the alienees. *Jāgīr* lands are found in every *tāluka* of the Rohri subdivision, and in a small portion of the Shikārpur subdivision, amounting altogether to 479 square miles. The first survey settlement was introduced into the District between 1862 and 1873, and has been revised every ten years. The survey rates at present in force are: garden land, Rs. 4–2 (maximum Rs. 6–8 and minimum Rs. 3); rice land, Rs. 4–2 (maximum Rs. 5 and minimum Rs. 3); 'dry' land, Rs. 2–11 (maximum Rs. 3–8 and minimum Rs. 1–12).

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	21,43	46,10	53,14	22,04
Total revenue . .	27,60	57,10	67,34	29,47

NOTE.—The figures for the three earlier years represent the old District of Shikārpur; the figures for 1903–4 are for the present District of Sukkur.

There are five municipalities in the District: SUKKUR, SHIKĀRPUR, GHARI YĀSIN, ROHRI, and GHOTKI. The local affairs of the rest of the District are managed by the District board at Sukkur and seven *tāluka* boards, with receipts of more than 1·2 lakhs in 1903–4. The expenditure in the same year was likewise 1·2 lakhs, of which about Rs. 50,000 was spent on roads and buildings. The principal source of income is the land cess.

The District Superintendent of police has an Assistant Superintendent and four inspectors. There are 13 police stations in the District. The total number of police is 712, of whom 11 are chief constables, 115 head constables, and 586 constables.

The District jail at Shikārpur has accommodation for 433 prisoners. A new District jail is now being built at Sukkur town. There are six subsidiary jails, with accommodation for 108 prisoners. The total daily average number of prisoners in 1904 was 439, of whom 5 were females.

The District stands last but one among the twenty-four Districts of the Presidency in respect of the literacy of its population, of whom 1·7 per cent. (5·7 males and 0·9 females) are able to read and write. In 1880–1 there were 104 schools with an attendance of 7,087 pupils. The number of passes rose to 19,738 in 1891 and to 26,388 in 1901 before the formation of Lārkāna District. In 1903–4 there were 466 schools with 17,485 pupils. Of these institutions, one is a high school, six are middle schools, and two are technical and other special schools.

The high school and a Saturday afternoon drawing-class for masters are supported by Government, 111 schools are managed by the local and municipal boards, 170 are aided, and one is unaided. The expenditure incurred on education is about 1½ lakhs, of which Rs. 21,000 is derived from fees. Of the total amount, 67 per cent. is devoted to primary schools.

Besides several private medical institutions, there are three hospitals and six dispensaries in the District, with accommodation for 132 in-patients. In these institutions, 96,980 cases were treated in 1904, of whom 1,441 were in-patients, and 4,536 operations were performed. The total expenditure was Rs. 23,800, of which Rs. 12,900 was contributed by the local boards and municipalities.

The number of persons successfully vaccinated in 1903-4 was 15,751, representing a proportion of 30 per 1,000, which exceeds the average for the Presidency.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

Sukkur Tāluka (*Sakhar*).—*Tāluka* of Sukkur District, Sind, Bombay, lying between 27° 41′ and 27° 58′ N. and 68° 38′ and 69° 2′ E., with an area of 302 square miles. The population rose from 83,543 in 1891 to 94,015 in 1901. The *tāluka* contains one town, SUKKUR (population, 31,316), the head-quarters; and 54 villages. The density, 309 persons per square mile, is the highest in the District. The land revenue and cesses in 1903-4 amounted to 2·3 lakhs. Irrigation depends chiefly on the Sukkur and Sind Canals, which, however, cannot reach the high-lying portions of the *tāluka*. The tract on the left bank of the Indus is poorly served with canals, and so far it has not been possible here to regulate irrigation from the river.

Sukkur Town (*Sakhar*).—Head-quarters of Sukkur District, Sind, Bombay, situated in 27° 42′ N. and 68° 54′ E., on the right or western bank of the Indus, opposite ROHRI. Midway between these two towns lies the island fortress of BUKKUR, and a little southward the wooded island of Sādh Bela. Sukkur is a station on the North-Western Railway, which here crosses the Indus to Rohri by the fine Lansdowne Bridge, constructed on the cantilever principle.

A range of low limestone hills, utterly devoid of vegetation, slopes down to the river; and it is on this rocky site that New Sukkur, as distinguished from the old town of the same name about a mile distant, is partly situated. Scattered about are the ruins of numerous tombs; and at the western side of the town, overlooking the river, is the lofty minaret of Mīr Māsum Shāh, erected, it is supposed, about 1607. The town is well drained and clean. In 1834 the population was estimated at only 4,000; in 1872 it had risen to 13,318; in 1881 to 27,389; in 1891 to 29,302; and in 1901 to 31,316. Muhammadans number 11,386; Hindus, 19,313; Christians, 339.

The trade of Sukkur, both local and transit, is still considerable, but no trustworthy details are available. It has suffered from the completion of railways on both banks of the Indus to Karāchi, and the consequent through booking of export produce. Statistics of the traffic on the Indus appear to have been regularly kept from 1855–6 to 1861–2, by an officer of the Indian Navy. In 1855–6, 600 boats proceeded up river with a total tonnage of 7,750; and in 1861–2, 1,232, with a tonnage of 20,232, discharged at the Sukkur port. In the same years, 629 and 1,714 boats left Sukkur, with cargoes amounting to 8,000 and 16,317 tons, respectively. The downward exports comprise silk, cotton cloth, raw cotton, wool, opium, saltpetre, sugar, dyes, and brass utensils. The upward traffic includes piece-goods, metals, wines and spirits, and country produce. There is a large local trade between Sukkur and Shikārpur. The town possesses no special manufactures, except a considerable boat-building industry. It has an aided technical school with an attendance of 27, and 13 other schools, of which 9 are for boys with 1,034 pupils, and 4 are for girls with 181 pupils. Besides the offices of the District authorities, the town contains a Subordinate Judge's court, a civil hospital, and a dispensary.

Old Sukkur seems to be a place of no great antiquity, though it contains the ruins of numerous tombs and mosques. Among the former is the tomb of Shāh Khair-ud-dīn Shāh, which is said to have been erected about 1758. New Sukkur owes its existence to the stationing of European troops here in 1839, at the time when Bukkur fort was made over to the British; and it was rapidly converted into a prosperous and busy town. In 1845, after a fatal epidemic of fever among the garrison, New Sukkur was abandoned as a station for European troops; but it is now of greater importance than before, as the centre of railway communication with Karāchi, Multān, and Quetta. A chain of forts protects the approach to the Lansdowne Bridge, while the repairing shops of the North-Western Railway in the Adam Shāh quarter are protected for rifle-defence. The water-supply is drawn from a group of wells near the Lansdowne Bridge, and is pumped up to tanks near the water-tower, which stands on the highest point of the limestone rocks of Sukkur. Among the chief buildings of New Sukkur are the municipal office and library, used as a signal-station during the period of existence of the Indus flotilla, three churches, and the railway institute. Little is known of Old Sukkur in the days of Afghān rule; but it is believed to have been ceded to the Khairpur Mīrs some time between the years 1809 and 1824. In 1833 it was the scene of a conflict between Shāh Shujā-ul-mulk, the dethroned Durrāni sovereign, and the Tālpur Mīrs, the latter being defeated. In 1843 Old Sukkur, together with Karāchi, Tatta, Bukkur, and Rohri, was yielded to the British in perpetuity.

The municipality, established in 1862, had an average revenue during the decade ending 1901 of 3 lakhs. In 1903-4 the income was 2 lakhs, composed chiefly of octroi (Rs. 94,000), *bandar* or port fees (Rs. 24,000), rent of houses and lands (Rs. 11,000), and house tax (Rs. 10,000); while the expenditure amounted to 1·6 lakhs, including Rs. 50,000 for administrative charges, Rs. 47,000 for extraordinary charges and debt, Rs. 21,000 for education, and a similar sum for conservancy.

Suklatīrtha (or Shukla Tīrth).—Village in the Broach *tāluka* of Broach District, Bombay, situated in 21° 45′ N. and 73° 7′ E., on the northern bank of the Narbadā, 10 miles from Broach city. Population (1901), 2,348. The most important fair in the District is held here every year, about November, on the occasion of the full moon of the month Kārtik. It lasts for five days, and on an average 25,000 people attend. Within a short distance of each other are three sacred *ghāts*, or *tīrthas*—the Kāvitīrtha, the Hunkāreshwartīrtha, and the Suklatīrtha. There is a temple at Hunkāreshwartīrtha. The name of Hunkāreshwar is said to have been given to the god because with a cry of 'hun' the image came up from the water of the Narbadā.

The following is the legendary account of the discovery of Suklatīrtha. In former times men were aware that somewhere on earth was a spot holy enough to purify from all sin; but none, even the wisest, knew where it lay. A certain king of Ujjain, Chānakya, growing old and thinking over the evil of his life, longed to find out this Suklatīrtha, or purifying spot. He therefore told the crows, whose feathers were at that time white, and who alone of birds had leave to enter the realms of the gods, to fly to Yama, the ruler of the infernal regions, and to tell him that king Chānakya was dead. The crows were to listen to the plans of the god Yama for the treatment of the king's soul, and were to discover from his words the locality of Suklatīrtha. They were able, on their return, to tell the king to start down the stream of the Narbadā, in a black-sailed boat, and when the blackness left his sail and it became white, he might know that he had reached his goal. The king obeyed; and after passing down-stream for several days, looking in vain for a change in the colour of his sail, he suddenly saw it flash white and knew that his journey was over. Leaving his boat he went on shore, bathed, and was purified. Yama, however, hearing of the deception practised upon him, was angry, and forbidding the crows to appear again in the realms of the gods, tarnished their plumage with stains, from which till this day they have failed to free themselves. There is more than one instance in legend or ancient history of men in high position coming to Suklatīrtha for purification. Perhaps the best known is that of Chandragupta and his minister Chānakya, coming to be cleansed from the guilt of the murder of

Chandragupta's eight brothers. So, also, in the beginning of the eleventh century, Chāmund, king of Anhilvāda, heart-broken at the loss of his eldest son, came as a patient to Suklatīrtha and remained there till he died. The ceremony of launching a boat with black sails in the hope of absolution from sin was, as noticed by Mr. Forbes, once practised at Suklatīrtha. But the pilgrims of these days use instead of a boat a common earthen jar containing a lighted lamp, which, as it drifts down the stream, carries away with it their guilt.

Sulaimān Range (28° 31′ to 32° 4′ N. and 67° 52′ to 70° 17′ E.).—Range of mountains in North-Western India, about 250 miles long, lying between the Gomal river on the north and the Indus on the south, which separates the North-West Frontier Province and Punjab from Baluchistān. Its backbone consists of a main ridge running north and south, flanked on the east by parallel serrated ranges. On the Baluchistān side these flanking ranges gradually take an east and west direction to meet the Central Brāhui range. The height of the range gradually decreases to the southward. The geological formation of the southern parts is distinct from that of the northern. In the former, sandstones, clays, and marls predominate; in the latter, pale marine coral limestone rests on Cretaceous sandstone. Petroleum has been worked in the Marri hills. On the southern slopes vegetation is scarce; in the central part olives abound; farther to the north the higher elevations are covered with edible pine (*chilghoza*), the fruit of which is collected and sold. In this part of the range much magnificent scenery is to be found, of which the extraordinarily narrow gorges constitute the most striking feature. These clefts afford a means of communication with the Punjab, the principal routes being through the Gat, Zao, Chuharkhel Dhāna, and Sakhi Sarwar Passes. The highest point of the range, 11,295 feet above the sea, is known to Europeans as the TAKHT-I-SULAIMĀN ('Solomon's throne') and to natives as Kasi Ghar. Sir Thomas Holdich describes the *takht* as a *ziārat* or shrine, situated on a ledge some distance below the crest of the southernmost bluff of the mountain. It is difficult of approach, but is nevertheless annually visited by many pilgrims, both Hindu and Muhammadan. The inhabitants in the northern parts of the range are Afghāns, and in the south Baloch. About thirty miles north-west of Fort Sandeman lies the picturesque little sanitarium of Shīnghar. Farther south is the Punjab hill-station of Fort Munro (6,363 feet), in Dera Ghāzi Khān District. Straight-horned *mārkhor* (*Capra falconeri*) are to be found at the higher and mountain sheep (*Ovis vignei*) at the lower elevations.

Sūlekere.—The largest tank in Mysore next to the Māri Kanave reservoir (*see* HAGARI). It is in the middle of the Channagiri *tāluk* of Shimoga District, and is said to be 40 miles round. It receives the drainage of 457 square miles, and is formed by a dam in a narrow

gorge on a stream called the Haridrā or Haridrāvati, which runs into the Tungabhadra at Harihar. The tank or *kere* is said to have been constructed in the eleventh or twelfth century by a *sūle* or dancing-girl, whence its name. She was a king's daughter, and having formed a connexion with some divinity, built as an act of expiation the tank, which, however, submerged the city of her father, and she was cursed by him. The channels from the tank supply hundreds of acres planted with sugar-cane.

Sulkea.—Suburb of Howrah city in Howrah District, Bengal. *See* SĀLKHIA.

Sultānābād.—*Tāluk* in Karīmnagar District, Hyderābād State, with an area of 287 square miles. The population in 1901, including *jāgīrs*, was 131,624, compared with 130,548 in 1891. The number of villages is 146, of which 41 are *jāgīr*, Sultānābād (population, 1,339) being the head-quarters. The land revenue in 1901 was 1·9 lakhs. Rice is largely raised by tank-irrigation.

Sultānganj.—Village in the head-quarters subdivision of Bhāgalpur District, Bengal, situated in 25° 15′ N. and 86° 45′ E., close to the Ganges and near the East Indian Railway. Population (1901), 4,410. Sultānganj is conspicuous for two great rocks of granite, one of which on the river bank is crowned by a Musalmān mosque. The second and larger one is occupied by a temple of Ghaibnāth Siva, and is a place of great holiness in the eyes of Hindus, few persons of position passing the place without making offerings to the idol. The river here impinges on a stone cliff, which is believed to be the scene of the loves of the river nymph and the god Siva. Close to the railway station are an ancient *stūpa* and extensive remains of a Buddhist monastery, where a number of figures have been exhumed. The town, which is served by rail and river, is a flourishing mart.

[*Archaeological Survey Reports*, vol. xv, pp. 24–31.]

Sultānpur District.—District in the Fyzābād Division of the United Provinces, lying between 25° 59′ and 26° 40′ N. and 81° 32′ and 82° 41′ E., with an area of 1,713 square miles. It is bounded on the north by Bāra Bankī and Fyzābād; on the east by Azamgarh and Jaunpur; on the south by Jaunpur and Partābgarh; and on the west by Rāe Barelī and Bāra Bankī. With the exception of a gradual and scarcely perceptible slope from north-west to south-east, the surface of the country is generally level, being broken only by ravines in the neighbourhood of the rivers by which its drainage is effected. The scenery is of a varied character. Many spots along the Gumtī are exceedingly pretty; but for the most part the country on both banks of that river is a dreary, bleak, and ravine-cut tract, occasionally relieved by mango groves. The centre of the District consists of highly cultivated and

Physical aspects.

well-wooded villages; while in the south, in strong contrast to this fertile tract, are widespread arid plains and swampy *jhīls* and marshes. The chief river is the Gumtī, which enters the District at its north-western corner and, after flowing in an exceedingly tortuous south-easterly course through the centre, passes out at the south-east. Its bed lies below the surface of the country, and is at first badly defined, but high banks are found in the latter part of its course. There are several small streams, the chief being the Majhoī, which forms part of the boundary between Fyzābād and Sultānpur. A number of shallow *jhīls* or swamps are found, but none of considerable size or importance.

The geological formation of the District is entirely alluvial, but *kankar* or calcareous limestone is common.

The flora presents no peculiarities. The only jungle of any size surrounds Rāmnagar in the south-west, though a few patches of *dhāk* (*Butea frondosa*) are found elsewhere. Sultānpur is, however, well wooded, and contains magnificent groves of mango, *jāmun* (*Eugenia Jambolana*), and *mahuā* (*Bassia latifolia*).

Wild animals are very few in number; the chief are wolves, jackals, and in places *nīlgai* and wild hog. Small game, such as partridge and quail, and in the cold season water-fowl and snipe, are common; and fish abound in the rivers, *jhīls*, and large tanks.

The climate is mild and healthy. West winds prevail from October to June, gradually increasing in strength as the hot season approaches. The average monthly temperature ranges from 65° in January to 90° or 100° in May. Frosts are uncommon.

Over the whole District the annual rainfall averages 43 inches, the north receiving slightly more than the south. Great variations are not uncommon; in 1877 the fall was only 13 inches, and in 1894 as much as 91 inches.

History.

Popular legend, as usual in Oudh, connects several places in the District with episodes in the Rāmāyana. The old town of Sultānpur bore the name of Kusabhavanpur, after Kusa, son of Rāma, who is said to have founded it. At the period of the Muhammadan conquest the District was held by the Bhars; but no places of importance were situated within it, and no references to it can be traced in the Persian historians. Local tradition asserts that Kusabhavanpur was conquered by Alā-ud-dīn; but the name of the conqueror is probably a mistake. The District formed part of the Jaunpur kingdom in the fifteenth century, and on the downfall of the Lodī dynasty became incorporated with the Delhi empire. Under the redistribution made by Akbar the present area fell partly in the *Sūbah* of Oudh and partly in that of Allahābād, but 250 years later the whole District came under the Nawāb of Oudh.

In 1856, when Oudh was annexed, a District of Sultānpur was formed, which included portions of what are now Bāra Bankī and Rāe Barelī Districts, while additions have been made to it from Fyzābād. The District assumed its present shape in 1869.

The only noteworthy incident in the history of the District since annexation is the revolt of the troops stationed at Sultānpur cantonment during the Mutiny of 1857. Anticipating an outbreak, the European ladies and children were dispatched on June 7 to Allahābād, which they ultimately succeeded in reaching in safety, after a good deal of rough treatment and plundering at the hands of the villagers. On June 9 the troops, consisting of one regiment of native cavalry and two of infantry, rose in rebellion and fired on their officers, killing Colonel Fisher, the commandant of the station, and Captain Gibbings. Two civilian officers, Mr. A. Block and Mr. S. Stroyan, also lost their lives, one being drowned and the other shot while attempting to cross the Gumtī. A few survivors were sheltered by the Rājā of Derā, who remained loyal throughout, while other *talukdārs* espoused the cause of the rebels. Several actions were fought in the District before the close of the year, but it was not till November, 1858, that order was fully restored.

Many ancient mounds are found, which are connected by local tradition with the Bhars. Some of them have yielded Buddhist remains, but no regular excavations have been made. The chief sacred places connected with the story of the Rāmāyana are Sītākund, a bathing *ghāt* on the Gumtī close to Sultānpur; and Dhopāp, lower down the same river. At the latter place are the ruins of a fort built by Sher Shāh, which is known as Shāhgarh.

The District contains 2,458 villages and only one town, the houses of the people being scattered in small hamlets. The population at the four enumerations was as follows: (1869) 1,040,227; (1881) 957,912; (1891) 1,075,851; (1901) 1,083,904. It is probable that the Census of 1869 overstated the actual number; but the District suffered from famine in 1877–8. There are four *tahsīls* —Sultānpur, Amethī, Musāfirkhāna, and Kādīpur—each named from its head-quarters. Sultānpur, the head-quarters of the District, is the only municipality. The chief statistics of population in 1901 are shown in the table on the next page.

Population.

Hindus form 89 per cent. of the total population and Muhammadans 11 per cent. Population is very dense everywhere, and emigration to the Colonies and to other parts of India is common. Considerable sums are remitted annually to their homes by the emigrants. The Awadhī dialect of Eastern Hindī is spoken almost universally.

Brāhmans are the most numerous caste, numbering 159,000, or 17 per cent. of the total. Other castes numerically important are:

Chamārs (tanners and cultivators), 140,000; Ahīrs (graziers and cultivators), 129,000; Rājputs, 87,000; Muraos (market-gardeners), 42,000; Kurmīs (agriculturists), 38,000; Pāsīs (toddy-drawers), 38,000; and Koris (weavers), 35,000. Among Musalmāns are found Rājputs, 26,000; Julāhās (weavers), 11,000; Shaikhs, 10,000; and Pathāns, 8,000. Agriculture supports 81 per cent. of the total population. Rājputs hold about 90 per cent. of the land, the three main clans being the Rājkumārs, Bandhalgotīs, and Bachgotīs. Brāhmans, Rājputs, Ahīrs, Kurmīs, Muraos, and Chamārs are the chief cultivating castes.

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Sultānpur	508	1	828	340,211	670	+ 2.8	8,289
Amethī	366	...	455	217,207	593	− 0.9	4,096
Musāfirkhāna	397	...	434	261,036	658	+ 3.9	5,674
Kādīpur	442	...	741	265,450	601	− 3.3	4,437
District total	1,713	1	2,458	1,083,904	633	+ 0.7	22,496

In 1901 there were 75 native Christians, of whom 57 were females; 61 persons belonged to the Anglican communion. A branch of the Zanāna Bible and Medical Mission was established in 1891.

Agriculture.

The Gumtī is bordered by a fringe of sandy land much broken by ravines. Farther inland, on both banks, the soil becomes a level fertile loam, which gradually changes both in the north and in the south to stiff clay. The whole of the riparian area is liable to suffer from the effects of floods and from water-logging after years of excessive rain. In the clay tracts the valuable late rice is the staple crop, while elsewhere other cereals, pulses, and millets are largely grown. Great plains of barren *ūsar* land are found in the southern clay tract, the largest areas lying in the south-west. There is a little alluvial soil in the bed of the Gumtī, especially in the western part of the District.

The tenures are those common to OUDH. *Talukdāri* estates include about 60 per cent. of the total area. About 80 per cent. is in the hands of sub-settlement holders or under-proprietors. Complex *mahāls*, or revenue units extending to more than one village, are found in small numbers. The main agricultural statistics for 1903–4 are given in the table on the next page, in square miles.

Rice is the most important crop, covering 399 square miles, or 40 per cent. of the cultivated area. The other food-crops are gram (207 square miles), wheat (172), barley (156), and peas and *masūr*

(109). Sugar-cane was grown on 28 square miles; but some of the Rājput clans have a prejudice against its cultivation. Poppy occupied 13 square miles, and a little indigo is still grown.

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Sultānpur	508	304	138	58
Amethī	366	191	98	39
Musāfirkhāna . . .	397	231	96	46
Kādīpur	442	263	151	33
Total	1,713	989	483	176

Between the first and second regular settlement the cultivated area increased by nearly 8 per cent., and there has since been a further expansion. The rise in the area double cropped is still larger; and the tendency seems to be to grow more of the inferior food-crops, such as peas and gram, which can be sown after an autumn crop has been reaped, while the area under wheat, which requires a period of fallow, has decreased. Sugar-cane and poppy are increasing in favour. There is a small but steady demand for advances under the Land Improvement and Agriculturists' Loans Act, which amounted to a total of 2·7 lakhs during the ten years ending 1900, the loans in 1896–7 accounting for 1·8 lakhs. In the next four years the loans averaged Rs. 3,200 annually.

The cattle bred locally, as in all the Districts of Southern Oudh, are exceptionally poor, and animals of a better class are imported. The ponies are also of inferior quality, but a stallion has recently been supplied by Government to encourage horse-breeding. Sheep and goats are kept in large numbers, chiefly for their manure.

The cultivators depend to a very large extent on natural tanks or *jhīls* for water to irrigate their land. In 1903–4 tanks and *jhīls* supplied 252 square miles, wells 225, and other sources 6. Irrigation from wells is the most reliable form, as the *jhīls* dry up in years when they are chiefly needed. The number of masonry wells is increasing, and temporary wells can be constructed in most parts. In the famine year of 1897 advances amounting to Rs. 80,000 were given for this purpose, and more than 600 masonry wells were also made. The usual method of raising water from wells is by means of a leathern bucket drawn by bullocks, or, in the east of the District, by hand labour. Where the spring-level is higher, a pot and pulley are employed. In the case of tanks water is raised by the swing-basket.

Kankar, or nodular limestone, is the chief mineral product, and is used for metalling roads and for making lime. Saline efflorescences are collected and used for making glass.

A little coarse cotton cloth is woven in a number of villages to meet the local demand. Metal vessels manufactured at Bandhuā have a good reputation.

Trade and communications.

The chief exports are grain, while the imports include piece-goods, salt, and metals. The traffic on the Gumtī was once considerable, but has declined with the construction of roads and railways. Sultānpur, Gaurīganj, Raipur, and Bazar Sukul are the chief markets. An annual fair and agricultural show are held at Sultānpur.

The main line of the Oudh and Rohilkhand Railway crosses the south-west corner of the District, and a branch from Fyzābād to Allahābād passes through the centre from north to south. The loop-line from Benares to Lucknow traverses the extreme east. Road communications are fairly good. Out of a total length of 857 miles, 99 miles of road are metalled. The chief routes are from Sultānpur town to Allahābād, Fyzābād, and Raipur, with a branch to Gaurīganj. Avenues of trees are maintained on 70 miles.

Famine.

The District has escaped fairly well from drought. In unfavourable years the poorer classes suffer from the effects of high prices, but distress has been severe only in 1877–8 and 1896–7. The drought of 1877 caused a failure of the autumn crops. Relief works were opened in 1878, but were not much resorted to. The harvest failed also in 1896, but a liberal system of advances enabled the people to sow a large area for the spring harvest, which turned out well. Revenue to the amount of Rs. 60,000 was remitted.

Administration.

The Deputy-Commissioner is usually assisted by five Deputy-Collectors recruited in India. An officer of the Opium department is stationed in the District, and a *tahsīldār* at the head-quarters of each *tahsīl*.

There are two regular District Munsifs and a Subordinate Judge for civil work. A scheme for the appointment of village Munsifs was introduced in 1902. The District is included in the Civil Judgeship of Rāe Barelī and in the Sessions division of Fyzābād. Criminal work is generally light, and dacoity and other serious forms of crime are almost unknown. Crimes of violence are fairly common, but there is little combination among the people, so that riots are rare.

The records of the first summary settlement perished in the Mutiny. It involved large reductions in the estates held by *talukdārs*. A second summary settlement was made on the restoration of order, the demand amounting to 9 lakhs. The first regular settlement, preceded by a survey, was completed between 1863 and 1870. In the southern part of the present District the assessment was based on the actual rent-rolls, checked by applying assumed rates selected from rates found to be paid. The northern portion, then included in Fyzābād, was assessed entirely at assumed rates. A revenue of 12·4 lakhs was fixed;

but bad seasons and inequalities in the assessment made a revision of the demand necessary in the north, which resulted in a reduction of Rs. 36,000. The settlement courts also decided a very large number of disputed claims to land. The second regular settlement was carried out between 1892 and 1898 by the Deputy-Commissioner in addition to his regular work. At this revision the assessment was made on the actual rent-rolls, corrected where necessary. The new revenue amounts to 14·9 lakhs, representing 46 per cent. of the net 'assets.' It falls at an incidence of Rs. 1·5 per acre over the whole District, varying from Rs. 1·4 to Rs. 8 in different *parganas*.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	10,68	11,77	14,15	14,66
Total revenue . .	11,99	15,96	19,83	20,55

Outside the municipality of Sultānpur, local affairs are managed by the District board, which in 1903-4 had a revenue and expenditure of 1·1 lakhs. Rates are the chief source of income, and the expenditure included Rs. 50,000 spent on roads and buildings.

There are 13 police stations; and the District Superintendent of police has under him a force of 3 inspectors, 79 subordinate officers, and 306 constables, besides 15 municipal police, and 2,383 rural and road police. The District jail contained a daily average of 222 prisoners in 1903.

The District is very backward as regards the literacy of its population, of whom only 2·1 per cent. (4·1 males and 0·1 females) could read and write in 1901. The number of public schools rose from 103 with 3,476 pupils in 1880-1 to 157 with 8,268 pupils in 1900-1. In 1903-4 there were 171 such schools with 8,464 pupils, of whom 71 were girls, besides 53 private schools with 492 boys and 52 girls. Only 887 pupils had advanced beyond the primary stage. Two schools are managed by Government and 117 by the District and municipal boards. The total expenditure on education was Rs. 36,000, of which Rs. 31,000 was provided from Local funds, and Rs. 5,000 by fees.

There are eight hospitals and dispensaries, with accommodation for 62 in-patients. In 1903 the number of cases treated was 30,000, including 670 in-patients, and 1,320 operations were performed. The expenditure amounted to Rs. 9,000, chiefly met from Local funds.

About 35,000 persons were successfully vaccinated in 1903-4, representing a proportion of 32 per 1,000 of population. Vaccination is compulsory only in the municipality of Sultānpur.

[F. W. Brownrigg, *Settlement Report* (1898); H. R. Nevill, *District Gazetteer* (1903).]

Sultānpur Tahsīl (1).—Central *tahsīl* of Sultānpur District, United Provinces, comprising the *parganas* of Mīrānpur and Baraunsa, and lying between 26° 2′ and 26° 31′ N. and 81° 49′ and 82° 22′ E., with an area of 508 square miles. Population increased from 330,964 in 1891 to 340,211 in 1901. There are 828 villages, but only one town, SULTĀNPUR (population, 9,550), the District and *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 4,27,000, and for cesses Rs. 69,000. The density of population, 670 persons per square mile, is the highest in the District. Through the centre of the *tahsīl* flows the Gumtī, in a tortuous course. Floods are often caused in its valley, but do not extend far; and the rest of the country is an elevated tract of fertile soil. The southern portion contains a number of large *jhīls* or swamps. In 1903–4 the area under cultivation was 304 square miles, of which 138 were irrigated, wells and tanks or *jhīls* being of almost equal importance as a source of supply.

Sultānpur Town (1).—Head-quarters of Sultānpur District and *tahsīl*, United Provinces, situated in 26° 15′ N. and 82° 5′ E., on the right bank of the Gumtī, and on a branch of the Oudh and Rohilkhand Railway and on the Fyzābād-Allahābād road. Population (1901), 9,550. Tradition relates that a town was founded on the left bank of the river by Kusa, son of Rāma, and called Kusabhavanpur after him. One of the kings of Delhi named Alā-ud-dīn, whose identity is uncertain, destroyed the place because its Bhar inhabitants had murdered some Saiyids, and raised a new town called Sultānpur. Early in the eighteenth century a cantonment sprang up under native rule on the present site, and the old town began to decline. It was finally razed to the ground after the Mutiny on account of the behaviour of the inhabitants. After the pacification of Oudh a detachment of British troops was stationed at Sultānpur for a time; but all troops were removed in 1861. The present town and civil station occupy the site of the old cantonments. They have been well laid out and improved by successive Deputy-Commissioners. Besides the usual offices, there are male and female hospitals, a town hall, and a poorhouse. Sultānpur has been a municipality since 1884. During the ten years ending 1901 the income and expenditure averaged Rs. 13,500. In 1903–4 the income was Rs. 25,000, chiefly derived from octroi (Rs. 10,000) and sale of land (Rs. 7,000); and the expenditure was Rs. 20,000. There are two good grain markets; and the trade of the place, which had suffered from the absence of a railway, is likely to be improved by the new line which passes through it. An agricultural show is held annually. There are two boys' schools with 350 pupils, and a small girls' school with 13.

Sultānpur Tahsīl (2).—*Tahsīl* of the Kapūrthala State, Punjab, lying between 31° 9′ and 31° 23′ N. and 75° 3′ and 75° 32′ E., with an

area of 176 square miles. The population increased from 73,023 in 1891 to 75,945 in 1901. It contains one town, SULTĀNPUR (population, 9,004); and 176 villages. The land revenue and cesses in 1903–4 amounted to 2·5 lakhs. The *tahsīl* is the most fertile in the State. The greater portion of it lies in the Beās lowlands, and the rest consists of a sandy plain beyond the reach of floods. In the main portion the cultivation depends on irrigation from wells.

Sultānpur Town (2).—Town in the Sultānpur *tahsīl* of Kapūrthala State, Punjab, situated in 31° 13′ N. and 75° 12′ E., 16 miles south of Kapūrthala town. Population (1901), 9,004. Founded in the eleventh century by one Sultān Khān Lodī, said to have been a general of Mahmūd of Ghazni, it lay on the great highway from Lahore to Delhi, and was a famous place in the Jullundur Doāb. It contains a *sarai* built by Jahāngīr, and two bridges, one attributed to Jahāngīr and one to Aurangzeb. Aurangzeb and his brother, Dārā Shikoh, were brought up here. Sultānpur was burnt in 1739 by Nādir Shāh, and is only now regaining its prosperity, while its trade in grain and cloth is increasing. It has a middle school and a dispensary.

Sultānpur Village (1).—Village in the Shāhāda *tāluka* of West Khāndesh District, Bombay, situated in 21° 38′ N. and 74° 35′ E., about 10 miles north of Shāhāda, on the site of a ruined city with an old fort and walls enclosing about a square mile. Population (1901), 340. Its present name is said to date from 1306, when Malik Kāfūr, on his way to conquer the Deccan, stopped here for some time. It was included in Gujarāt till, in 1370, it was taken by Malik Rājā (1370–99), the first Fārūki king of Khāndesh. Muzaffar, the Gujarāt king, hastened to recover it, and Malik Rājā was forced to retire to Thālner. In 1417 the joint forces of Malik Nāsir of Khāndesh (1399–1437) and Ghazni Khān of Mālwā invested Sultānpur, but retired on the advance of the Gujarāt army. In 1536, according to a promise made while a prisoner, Muhammad III made over Sultānpur and Nandurbār to Mubārak Khān Fārūki of Khāndesh. Under Akbar (1600) Sultānpur was a *mahāl* of the *sarkār* of Nazurbār or Nandurbār. The local story of the destruction of Sultānpur is that Jaswant Rao Holkar, escaping from Poona, formed an alliance with the Bhīls, and plundered such of the people as would not acknowledge him as their ruler. Lakshman Rao Desai, the chief man of Sultānpur, refused a demand for money; but Holkar, receiving an offer from another resident, with his Bhīl allies, entered the town, and won over the garrison. The Bhīls were let loose, the town was laid waste, and except one man all the people fled. The state of the place, deserted but not decayed, and with clearly marked roads, avenues, and gardens, supports the truth of this story. Besides the fort, originally an intricate building of mud faced with brick, there are the remains of a great mosque known as the

Jāma Masjid, of no particular merit, and now, like the other ruins, dismantled to supply building materials for the neighbouring villages. Outside the village is a ruined temple of Mahādeo. Opposite the usual camping ground is a small well-preserved temple built by Ahalyā Bai Holkar, regent of Indore. To the east of the village a garden, from 250 to 300 yards square, is enclosed by a brick-faced mud wall 3 feet thick, and entered by a striking brick gateway 30 feet high. The most interesting ruin is the mansion of Lakshman Rao Desai, once a handsome house, with a well-watered garden.

Sultānpur Village (2).—Village in the Kulū subdivision and head-quarters of the Kulū *tahsīl*, Kāngra District, Punjab, situated in 31° 58′ N. and 77° 10′ E., at the junction of the Beās and Sarvari and below the Bhubhu pass, at an elevation of 4,092 feet. Population (1901), 1,609. It was founded in the seventeenth century by the Kulū Rājā, Jagat Singh. The place is an important dépôt for the trade between the Punjab and Leh and Central Asia. It has an out-still for the manufacture of country spirit, a vernacular middle school, and a Government dispensary, under an assistant surgeon. The village was nearly destroyed by the earthquake of April 4, 1905.

Sumpthar.—State in Central India. *See* SAMTHAR.

Sunābdeo.—Hot spring in West Khāndesh District, Bombay. *See* RĀM TALAO.

Sunām Tahsīl.—Westernmost *tahsīl* of the Karmgarh *nizāmat*, Patiāla State, Punjab, lying between 29° 44′ and 30° 14′ N. and 75° 40′ and 76° 12′ E., with an area of 486 square miles. The population in 1901 was 121,498, compared with 122,484 in 1891. It contains the town of SUNĀM (population, 10,069), the head-quarters; and 122 villages. The land revenue and cesses in 1903–4 amounted to 2·5 lakhs.

Sunām Town.—Head-quarters of the *tahsīl* of the same name in the Karmgarh *nizāmat*, Patiāla State, Punjab, situated in 30° 8′ N. and 75° 52′ E., 43 miles south-west of Patiāla town, with which it is connected by a metalled road, and on the Ludhiāna-Jākhal branch of the North-Western Railway. Population (1901), 10,069. The town has little local trade, but the construction of the railway will probably revive the decaying manufacture of cotton goods for which it used to be famous. Though now of little importance, Sunām played a great part in the history of the Punjab after the Muhammadan invasions, and Albirūnī mentions it as famous before that period. The ancient town, called Sūrajpur, stood near the Sūrajkund, or 'pool of the Sun,' and traces of it still remain. Fīroz Shāh brought a canal to the town. In 1398 Tīmūr attacked it, and, though it appears again as a dependency of Sirhind under Akbar, it never regained its old importance. The modern town lies on the site of the fort of Sunām about a mile

away. It has an Anglo-vernacular middle school, a police station, and a dispensary.

Sunāmganj.—Subdivision in the north-western corner of Sylhet District, Eastern Bengal and Assam, lying between 24° 33′ and 25° 13′ N. and 90° 56′ and 91° 49′ E., with an area of 1,493 square miles. The population in 1901 was 433,752, compared with 413,381 in 1891, an increase of nearly 5 per cent., which was a little higher than the rate for the whole District. The south-west monsoon sweeping up the Surmā Valley is checked by the precipitous wall of the Khāsi Hills and pours down in torrents of rain on the plain beneath. The greater portion of the subdivision is thus completely submerged in the rains, and is able to support only a comparatively sparse population, 291 persons per square mile, compared with 416 in the whole District. Sunāmganj consists of a level plain, much of which lies too low for cultivation, being covered with a dense jungle of reeds and grasses. Excellent fodder is obtained in the swamps in the cold season, and they are resorted to by cattle graziers in considerable numbers. The drying of fish is also an industry of some importance, and large quantities of this malodorous product are exported to the Khāsi Hills. The staple food-crops are *āman*, a long-stemmed variety of rice grown in marshy ground, and *boro* rice, which is reaped before the floods rise. The principal centres of trade are Sunāmganj (population, 3,530), the head-quarters, and CHHĀTAK, where there is a large traffic in lime, which is quarried in the Khāsi Hills and burnt on the banks of the Surmā river. Sunāmganj, situated on the left bank of the Surmā river, is a place of call for steamers. The subdivision is usually in charge of a native magistrate, and for administrative purposes is divided into the four *thānas* of Sunāmganj, Chhātak, Dirai, and Dharmapāshā. It contains one town, Sunāmganj; and 2,493 villages. The demand on account of land revenue and cesses in 1903–4 was Rs. 80,000.

Sundarbans.—A vast tract of forest and swamp, extending for about 170 miles along the sea face of the Bay of Bengal from the estuary of the Hooghly to that of the Meghnā, and running inland to a distance of from 60 to 80 miles. The most probable meaning of the name is the 'forest of *sundri*' (*Heritiera littoralis*), this being the characteristic tree found here. The tract lies between 21° 31′ and 22° 38′ N. and 88° 5′ and 90° 28′ E., with an area of 6,526 square miles, of which 2,941 are included in the District of the TWENTY-FOUR PARGANAS, 2,688 in KHULNĀ, and 897 in BACKERGUNGE.

Physical aspects.

The Sundarbans forms the lower part of the Ganges delta, and is intersected from north to south by the estuaries of that river, the most important, proceeding from west to east, being the HOOGHLY, Mātla, Raimangal, Mālanchā, HARINGHĀTA, Rabnābād, and MEGHNĀ. The tract through

which they flow is one vast alluvial plain, where the process of land-making has not yet ceased and where morasses and swamps, now gradually filling up, abound. The rivers are connected with each other by an intricate series of branches, and the latter in their turn by innumerable smaller channels; so that the whole tract is a tangled network of streams, rivers, and watercourses enclosing a large number of islands of various shapes and sizes. Cultivation is confined to a fringe of reclaimed land situated along the northern boundary, except in Backergunge, where some of the clearings extend almost down to the sea.

The flat swampy islands are covered with dense forest, the most plentiful and important species being the *sundri*, which thrives most where the water in the channels is least brackish. Towards the north the forests contain a rather dense undergrowth, but elsewhere this is very scanty. In the north some mangroves, chiefly *Kandelia* and *Bruguiera*, are found scattered along the river banks; farther south, as the influence of the tide increases, they become more numerous, *Ceriops* and *Rhizophora* now appearing with the others, till at length the riparian vegetation is altogether mangrove. By this time too, *sundri* and its associates largely disappear from the interior forests, which are now mainly composed of *geoā* (*Excoecaria Agallocha*). Nearer the sea this in turn gives way to mangroves. This pure mangrove forest sometimes extends into the tide; but at other times it is separated from the waves along the sea face by a line of low sand-dunes, on which reappear some of the swamp forest species, accompanied by a few plants characteristic of other Asiatic shores, such as *Erythrina indica*, *Thespesia populnea*, *Ficus Rumphii*, and others for which the conditions in the swampy islands of the interior seem to be unsuited.

The wild animals include tigers, which cause much destruction, rhinoceros (now nearly extinct), buffalo, hog, spotted deer (*Cervus axis*), barking-deer (*Cervulus muntjac*), and hog deer (*Cervus porcinus*). The rivers are infested with crocodiles, which are dangerous to man and beast; and the cobra, python, and many other varieties of snakes are found. In the cold season, geese, duck, and other birds congregate in large numbers on the sandbanks.

The average annual rainfall varies from about 82 inches in the west to over 200 inches in the east. Cyclones and storm-waves occur from time to time. The worst of the recent calamities of this nature was in 1870, when a great part of Backergunge and the adjoining Districts was submerged, the depth of water in some places being over 10 feet. An account of this catastrophe is given in the article on BACKERGUNGE District.

Nothing is known of the Sundarbans until about the middle of the

fifteenth century, when a Muhammadan adventurer, named Khān Jahān, or Khānja Alī, obtained a *jāgīr* from the king of Gaur, and made extensive clearances near Bāgherhāt in Khulnā; he appears to have exercised all the rights of sovereignty until his death in 1459. A hundred years later, when Daud, the last king of Bengal, rebelled against the emperor of Delhi, one of his Hindu counsellors obtained a Rāj in the Sundarbans, the capital of which, ISWARĪPUR, near the Kālīganj police station in Khulnā, was called Yasohara and has given its name to the modern District of Jessore. His son, Pratāpāditya, was one of the twelve chiefs or Bhuiyās who held the south and east of Bengal, nominally as vassals of the emperor, but who were practically independent and frequently at war with each other. He rebelled but, after some minor successes, was defeated and taken prisoner by Rājā Mān Singh, the leader of Akbar's armies in Bengal from 1589 to 1606.

History.

It is believed that at one time the Sundarbans was far more extensively inhabited and cultivated than at present; and possibly this may have been due to the fact that the shifting of the main stream of the Ganges from the Bhāgīrathi to the Padmā, by diminishing the supply of fresh water from the north, rendered the tract less fit for human habitation. Another cause of the depopulation of this tract may be found in the predatory incursions of Magh pirates and Portuguese buccaneers in the early part of the eighteenth century. It is said that in 1737 the people then inhabiting the Sundarbans deserted it in consequence of the devastated state of the country, and in Rennell's map of Lower Bengal (1772) the Backergunge Sundarbans is shown as 'depopulated by the Maghs.' The most important remains are the tomb of Khān Jahān and the ruins of Shāt Gumbaz and Iswarīpur in the Bāgherhāt subdivision of Khulnā District, the temple of Jhatar Dad in the Twenty-four Parganas, and the Navaratna temple near Kālīganj police station in Khulnā.

Population.

The majority of the present inhabitants have come from the Districts immediately to the north of the Sundarbans, and consist chiefly of low-caste Hindus and Muhammadans, the Pods being the most numerous Hindu caste in the west and the Namasūdras or Chandāls towards the east. The Muhammadans, who are numerous in the east, belong mostly to the fanatical sect of Farāzis. In the Backergunge Sundarbans there are some 7,000 Maghs who came originally from the Arakan coast. Between the months of October and May crowds of wood-cutters from Backergunge, Khulnā, Farīdpur, Calcutta and elsewhere come in boats and enter the forests for the purpose of cutting jungle. The coolies whom they employ to do jungle-clearing, earthwork, &c., come from Hazārībāgh, Bīrbhūm, Mānbhūm, Bānkurā, and Orissa. There are no villages or towns, and

the cultivators live scattered in little hamlets. PORT CANNING was at one time a municipality, but is now nearly deserted; MORRELGANJ in the Khulnā District is an important trading centre.

Agriculture.

The reclaimed tract to the north is entirely devoted to rice cultivation, and winter rice of a fine quality is grown there; sugar-cane and areca-palms are also cultivated in the tracts lying in Khulnā and Backergunge Districts. When land is cleared, a *bāndh* or dike is erected round it to keep out the salt water, and after two years the land becomes fit for cultivation; in normal years excellent crops are obtained, the out-turn being usually about 20 maunds of rice per acre.

Forests.

The Sundarbans contains 2,081 square miles of 'reserved' forests in Khulnā District, and 1,758 square miles of 'protected' forests in the Twenty-four Parganas. These are under the charge of a Deputy-Conservator of Forests, aided by two assistants, whose head-quarters are at Khulnā. The characteristics of the forests have been described above. They yield an immense quantity of timber, firewood, and thatching materials, the minor produce consisting of *golpāta* (*Nipa fruticans*), *hantāl* (*Phoenix paludosa*), *nal*, honey, wax, and shells, which are burned for lime. The 'protected' forests in the Twenty-four Parganas are gradually being thrown open for cultivation, and 466 square miles were disforested between the years 1895 and 1903. The gross receipts from the Sundarbans forests in 1903–4 were 3·83 lakhs, and the net revenue 2·71 lakhs.

At KĀLĪGANJ, in Khulnā District, country knives, buffalo-horn combs, and black clay pottery are made.

Trade and communications.

Rice, betel-nuts, and timber are exported to Calcutta.

Port Canning on the Mātla river is connected with Calcutta by rail; but, apart from this, the only means of communication are afforded by the maze of tidal creeks and cross-channels by which the Sundarbans is traversed. These have been connected with one another and with Calcutta by a system of artificial canals (described under the CALCUTTA AND EASTERN CANALS), which enable Calcutta to tap the trade of the Ganges and Brahmaputra valleys. Regular lines of steamers for passengers and cargo use this route, while the smaller waterways give country boats of all sizes access to almost every part of the tract. Fraserganj at the mouth of the Hooghly river has recently been selected as the site of a permanent wireless telegraphy station, the object of which is to establish communication with vessels in the Bay of Bengal.

The tracts comprised in the Sundarbans form an integral part of the Districts in which they are included. The revenue work (except its

collection) was formerly in the hands of a special officer called the Commissioner in the Sundarbans, who exercised concurrent jurisdiction with the District Collectors; but this appointment has recently been abolished, and the entire revenue administration has been transferred to the Collectors concerned.

Administration.

The earliest known attempt to bring the Sundarbans under cultivation was that of Khān Jahān. More recent attempts date from 1782, when Mr. Henckell, the first English Judge and Magistrate of Jessore, inaugurated the system of reclamation between Calcutta and the eastern Districts. Henckellganj, named after its founder by his native agent, appears as Hingulganj on the survey maps. This area was then a dense forest, and Mr. Henckell's first step was to clear the jungle; that done, the lands immediately around the clearances were gradually brought under cultivation. In 1784, when some little experience had been gained, Mr. Henckell submitted a scheme for the reclamation of the Sundarbans, which met with the approval of the Board of Revenue. Two objects were aimed at: to gain a revenue from lands then utterly unproductive, and to obtain a reserve of rice against seasons of drought, the crops in the Sundarbans being very little dependent upon rainfall. The principal measure adopted was to make grants of jungle land on favourable terms to people undertaking to cultivate them. In 1787 Mr. Henckell was appointed Superintendent of the operations for encouraging the reclamation of the Sundarbans, and already at that time 7,000 acres were under cultivation. In the following year, however, disputes arose with the *zamīndārs* who possessed lands adjoining the Sundarbans grants; and as the *zamīndārs* not only claimed a right to lands cultivated by the holders of these grants, but enforced their claims, the number of settlers began to fall off rapidly. Mr. Henckell expressed a conviction that, if the boundaries of the lands held by the neighbouring *zamīndārs* were settled, the number of grants would at once increase; but the Board of Revenue had grown lukewarm about the whole scheme, and in 1790 it was practically abandoned. Several of the old grants forthwith relapsed into jungle.

In 1807, however, applications for grants began to come in again; and in 1816 the post of Commissioner in the Sundarbans was created by Regulation IX of that year, in order to provide an agency for ascertaining how far neighbouring landholders had encroached beyond their permanently-settled estates, and for resuming and settling such encroachments. From that time steady progress was made until, in 1872, the total area under cultivation was estimated at 1,087 square miles, of which two-thirds had been reclaimed between 1830 and 1872. The damage done by the disastrous cyclone of 1870 led to the abandonment of many of the more exposed holdings, and in 1882 the total reclaimed area was returned at only 786 square miles.

Since then rapid progress has again been made, and in 1904 the total settled area had risen to 2,015 square miles.

Settlements of waste lands have, until recently, been formed under the rules promulgated in 1879, the grants made being of two classes: namely, blocks of 200 acres or more leased for forty years to large capitalists who are prepared to spend time and money in developing them; and plots not exceeding 200 acres leased to small capitalists for clearance by cultivators. Under these rules one-fourth of the entire area leased was for ever exempted from assessment, while the remaining three-fourths was held free of assessment for ten years. On the expiry of the term of the original lease, the lot was open to resettlement for a period of thirty years. It was stipulated that one-eighth of the entire grant should be rendered fit for cultivation at the end of the fifth year, and this condition was enforced either by forfeiture of the grant or by the issue of a fresh lease at enhanced rates. Almost the whole of the area available for settlement in Khulnā has already been leased to capitalists; in Backergunge 479 out of 645 square miles have been settled, and in the Twenty-four Parganas 1,223 out of 2,301 square miles. Experience has shown that this system has led to the growth of an undesirable class of land speculators and middlemen, and to the grinding down of the actual cultivators by excessive rents. Land-jobbers and speculators obtained leases for the purpose of reselling them; in order to recoup his initial outlay the original lessee often sublet to smaller lessees in return for cash payments; and the same process was carried on lower down the chain, with the result that the land was eventually reclaimed and cultivated by peasant cultivators paying rack-rents. It was accordingly decided in 1904 to abandon this system and to introduce a system of *ryotwāri* settlement, as an experimental measure, in the portions of the Sundarbans lying in the Districts of Backergunge and the Twenty-four Parganas. Under this system small areas will be let out to actual cultivators, assistance being given them by Government in the form of advances, as well as by constructing tanks and embankments and clearing the jungle for them.

[J. Westland, *Report on Jessore* (Calcutta, 1874); F. E. Pargiter, *Revenue History of the Sunderbans from* 1765 *to* 1870 (Calcutta, 1885).]

Sundarvādi.—Another name of Sāvantvādi, Bombay. *See* VĀDI.

Sundoor.—Native State in Bellary District, Madras. *See* SANDŪR.

Sunel.—Town in the Rāmpura-Bhānpura district of Indore State, Central India, and head-quarters of the Sunel *pargana*, situated in 24° 22′ N. and 76° 0′ E., one mile from the bank of the Au river, a tributary of the Kāli Sind. Population (1901), 3,655. The place belonged in the eleventh century to the Gahlot Rājputs, some of whom still live in the neighbourhood; and under Akbar it became the chief

town of a *mahāl* in the *sarkār* of Gāgraun in the *Sūbah* of Mālwā. In 1743 it was included in the territory made over to Sawai Jai Singh of Jaipur, passing in 1739 to the Marāthās. It was then held by the Ponwārs of Dhār, who assigned it in *jāgīr* together with AGAR to Sivajī Shankar Orekar, minister of Dhār State. In 1800 it was temporarily seized by Jaswant Rao Holkar. Later it fell to Sindhia, who was called in by Rang Rao Orekar, then at feud with the Dhār chief. In 1804 it again passed to Holkar, in whose possession it has since remained. The place was sacked by Tāntiā Topī in 1857. A temple situated in the town was built in 1753, and a large religious fair is held yearly in March. A municipality has lately been constituted. Besides the *pargana* offices, a school, a dispensary, and British and State post offices are maintained here.

Sunet.—Ruins in the District and *tahsīl* of Ludhiāna, Punjab, situated in 30° 53′ N. and 75° 50′ E., 3 miles south-west of Ludhiāna town. A large mound clearly marks the ancient site of an important city. Cunningham concludes from the coins here discovered that the town of Sunet must have been in existence before the Christian era, and that it continued to flourish during the whole period of the Indo-Scythians and of their successors who used Sassanian types, down to the time of Samanta Deva, the Brāhman king of Kābul or Ohind. On the other hand, from the absence of coins of the Tomar Rājās of Delhi and of the Muhammadan dynasties, it is inferred that Sunet was destroyed during the invasions of Mahmūd Ghazni, and never reoccupied.

[*Archaeological Survey Reports*, vol. xiv, p. 65.]

Sunth.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 55′ and 23° 33′ N. and 73° 45′ and 74° 10′ E., with an area of 394 square miles. It is bounded on the north by the Kadāna State of Rewā Kāntha and the States of Dungarpur and Banswāra of Rājputāna; on the east by the Jhālod *tāluka* of the British District of the Pānch Mahāls; on the south by Sanjeli State under Rewā Kāntha and by the Godhra *tāluka* of the Pānch Mahāls; and on the west by Lūnāvāda State. To the north the country is fairly flat and open, crossed by several small streams on their way north to the Mahī; to the south it is rugged, covered with long craggy lines of hill. The Mahī flows through the north-west, and the Pānam through the south-west corner of the State. Near the centre the small stream of Chibota passes by the village of Sunth, and towards the east the Suki flows past the village of Rāmpur. A range of hills, of no great height, running in a curve from the Pānam river in the south to the Mahī in the north, divides the State into two parts. Besides this principal range, many other hills run in parallel lines from north to south. The climate is generally unhealthy and malarious.

The family of the chief of Sunth, Ponwār or Paramāra by caste, claims to belong to the Mahipāwat branch of the famous Mālwā dynasty. The dynasty was driven from Ujjain (it is stated in the tenth century A.D.); and, according to the Sunth bards, Jhālam Singh, a Ponwār from Mount Abu, established his power at Jhālod in the Pānch Mahāls, and gave his name to the town. There is a legend that the emperor, hearing of the exceeding beauty of the daughter of Jhālam Singh, Rānā of Jhālod (the fifth in succession from Jhālam Singh, the founder of the dynasty at Jhālod), demanded her in marriage; and that on Jhālam Singh declining the alliance, he was attacked by the Mughal army, defeated, and killed. His son, Rānā Sunth, fled for safety to the Sunth jungles, then under the sway of a Bhīl chief called Sutta. In the year 1255 Sunth defeated Sutta, and took possession of his capital, called Brahmapuri. He changed its name to Sunth, and established his own dynasty. According to another tradition, the Sunth family is said to have come from Dhār in Mālwā, when that principality was conquered by the Muhammadans. From 1443 the State was tributary to the Ahmadābād Sultāns, and, on their decline, received some additions of territory. In 1819 Sunth was overrun by Sindhia's troops, and would have been either annexed or laid waste had not the British Government interfered. Through the medium of Sir John Malcolm it was arranged that, on condition of Sindhia withdrawing his troops, Sunth should pay a tribute of Rs. 6,100. The control of the State, vested in the British Government under this arrangement, was in 1826 made over to the Rewā Kāntha Political Agent. The chief is entitled to a salute of 9 guns. The family follows the rule of primogeniture for succession, and holds a *sanad* authorizing adoption.

The population was: (1881) 52,822, (1891) 74,275, and (1901) 39,956, showing a decrease of 46 per cent. during the last decade, due to the famine of 1899–1900. The State contains one town, Rāmpur (population, 3,338); and 87 villages. Hindus number 38,211 and Muhammadans 1,552. The capital is Rāmpur, situated on the range of hills that crosses the State from north to south.

The only arable land is in the valleys, where the soil, well charged with moisture, yields without manure two crops a year of ordinary grain. Maize is the staple; and millet, pulse, gram, wheat, and in a few well-favoured spots sugar-cane, are also grown. The forests yield a large supply of timber. Irrigation is carried on from tanks and wells. In 1903–4 the value of exports from the State was 2 lakhs and of imports Rs. 90,000.

The chief has power to try his own subjects for capital offences without the permission of the Political Agent. He enjoys a revenue of about 1¼ lakhs, and pays a tribute of Rs. 5,384–9–10 to the British

Government. The State contains one municipality, Rāmpur, with an income in 1903–4 of Rs. 228. There is no organized military force, but a body of 13 Arabs act as guards of the palace, 5 men of the foot police act as gunners in addition to their ordinary duties, and 39 *pattāwats* hold villages on feudal tenure. In 1903–4 the police numbered 155. The State contains one jail, and a dispensary, treating annually about 6,000 patients. There were, in 1903–4, 11 schools with 494 pupils, of whom 60 were girls.

Supaul Subdivision.—Northern subdivision of Bhāgalpur District, Bengal, lying between 25° 59′ and 26° 34′ N. and 86° 24° and 87° 8′ E., with an area of 934 square miles. The subdivision is a continuation of the great alluvial plain of North Bihār, its northern frontier consisting of the marshy submontane tract known as the *tarai*. The population in 1901 was 510,900, compared with 481,562 in 1891. It contains 482 villages, of which SUPAUL is the head-quarters; but no town. The subdivision is the most progressive part of the District and, after the head-quarters subdivision, the most thickly populated, the density being 547 persons per square mile.

Supaul Village.—Head-quarters of the subdivision of the same name in Bhāgalpur District, Bengal, situated in 26° 6′ N. and 86° 36′ E. Population (1901), 3,101. The village, which is an important mart, contains the usual public offices; the sub-jail has accommodation for 18 prisoners.

Surada.—*Zamīndāri tahsīl* in the interior of Ganjām District, Madras, consisting of the Bodogodo *zamīndāri* and some Agency tracts, with an area of 198 square miles. The population in 1901 was 23,230, compared with 20,380 in 1891. They live in 198 villages. The demand for land revenue and cesses in 1903–4 was Rs. 9,350. The head-quarters are at Surada, which is situated in the adjoining Government *tāluk* of Goomsur. The country is most picturesque, being diversified with wild hills and valleys buried in thick forest. The only places of commercial importance are Bodogodo and Gazilbādi. A weekly market is held every Thursday at the latter; and the products of the neighbouring hills, such as saffron, oilseeds, red gram, *kamela* dye, arrowroot, and *sīkāyi*, are brought to it for export to Berhampur.

Surahā Tāl.—Lake in Balliā District, United Provinces, 4 miles north of Balliā town, situated in 25° 51′ N. and 84° 11′ E. Its shape is that of a thick crescent lying north and south, and its area varies from 13 square miles in the rains to over 4 during the dry season. *Boro* or summer rice is largely sown round the edge in the spring, and in the deeper parts of the lake the weed *siwār*, which is used for refining sugar, grows abundantly. Fish are plentiful and are caught by sinking nets stretched on conical frameworks, the fish being speared

as they try to escape. In the cold season teal and duck are common. The lake is drained by a channel called Katihār, which leads south to the Ganges; but when the Ganges rises, its waters flow back into the lake. In the cold season the Katihār is temporarily dammed to hold up sufficient water for irrigating the crops on the banks of the lake.

Sūrajgarh.—Chief town of the estate of the same name in the Shekhāwati *nizāmat* of the State of Jaipur, Rājputāna, situated in 28° 18′ N. and 75° 45′ E., about 98 miles north of Jaipur city. Population (1901), 5,243. The Thākur pays a tribute of about Rs. 8,400 to the Jaipur Darbār. The town possesses a combined post and telegraph office, and 6 elementary indigenous schools attended by 120 boys.

Sūrandai.—Town in the Tenkāsi *tāluk* of Tinnevelly District, Madras, situated in 8° 59′ N. and 77° 25′ E. It is a Union, with a population (1901) of 11,810. It carries on a considerable trade in pulse and other grain with Tinnevelly town and other places in the District.

Sūrāpur Tāluk.—*Tāluk* in Gulbarga District, Hyderābād State. Including *jāgīrs*, its area in 1901 was 664 square miles, and its population 105,702, compared with 101,185 in 1891. It contains one town, SŪRĀPUR (population, 8,271), the head-quarters; and 181 villages, of which 48 are *jāgīr*. The Kistna river forms its southern boundary. The land revenue in 1901 was 1·7 lakhs.

Sūrāpur Town.—Head-quarters of the *tāluk* of the same name in Gulbarga District, Hyderābād State, situated in 16° 31′ N. and 76° 46′ E. Population (1901), 8,271. The town belonged to the Rājās of Sūrāpur, the last of whom revolted during the Mutiny of 1857, and the *samasthān* was made over to the Hyderābād State as a gift after the restoration of order. It contains a Munsif's court, a dispensary, an English middle school, a girls' school, a post office, a branch British post office, and the 'New Darbār,' a large building built by Colonel Meadows Taylor during his residence here.

Sūrasena.—The ancient name of a tract of country in Northern India, round Muttra. According to the Purānas it was the name of the grandfather of Krishna, whose history is closely connected with Muttra. The inhabitants of the tract were called Saurasenas, and Arrian mentions the *Saurasenoi* as possessing two large cities, *Methora* (MUTTRA) and *Cleisobora* or *Cyrisobora* (not certainly identified)[1], while the *Jobares* river (Jumna) flowed through their territory. Pliny describes the *Jomanes* as flowing between *Methora* and *Carisobora*.

[1] Lassen (*Ind. Alt.*, vol. i, p. 127 *n.* 3) suggests that this is equivalent to Krishnapura, which he places at Agra. Cunningham (*Ancient Geography of India*, p. 375) identifies it with BRINDĀBAN. Muttra, Agra, and Brindāban are all on the right bank of the Jumna. See also McCrindle, *Ancient India as described by Megasthenes and Arrian*, pp. 140–1 and note.

Varāha Mihira, the Sanskrit geographer of the sixth century A.D., makes several references to the Saurasenas, who are placed in the MADHYA DESA or 'middle country.' The name has been applied to a variety of Prākrit, called Saurasena, which appears to have been the ancestor of the present language described as Western Hindī in the Linguistic Survey of India. In later times part of this tract was called Braj or Braj Mandal, a name which still survives (*see* MUTTRA DISTRICT).

Surāshtra.—The Sanskrit name given to KĀTHIĀWĀR.

Surat Agency.—A small group of Native States in Bombay, under the superintendence of the Political Agent, Surat, with an area of 1,960 square miles, consisting of the Sīdī (Musalmān) principality of SACHĪN, which comprises a number of isolated tracts within the British District of Surat; the estates of the Rājās of BĀNSDA and DHARAMPUR, situated in the hilly tracts between the Districts of Khāndesh, Nāsik, Thāna, and Surat; and a tract known as the DĀNGS recently added to the Agency. Population (1901), 179,975. The Agency contains 2 towns and 644 villages. Hindus number 173,613 and Muhammadans 5,537. The aggregate revenue of the States in 1903–4 was about 12½ lakhs.

Surat District.—District in the Northern Division of the Bombay Presidency, lying between 20° 17′ and 21° 28′ N. and 72° 35′ and 73° 29′ E., with an area of 1,653 square miles. It is bounded on the north by Broach District and the Native State of Baroda; on the east by the States of Baroda, Rājpīpla, Bānsda, and Dharampur; on the south by Thāna District and the Portuguese territory of Damān; and on the west by the Arabian Sea. A broad strip of Baroda (Gaikwār's) territory separates the north-western from the south-eastern portion of the District.

Physical aspects.

Surat District consists of a wide alluvial plain, stretching between the Dāng hills and the coast, from the Kīm river on the north to the Damānganga on the south, a distance of about 80 miles. The coast-line runs along the Arabian Sea where it begins to narrow into the Gulf of Cambay. Small hillocks of drifted sand fringe the greater part of the shore, in some parts dry and barren, but in others watered by springs, enclosed by hedges, and covered with a thick growth of creepers and date-palms. Through the openings of the river mouths, however, the tide runs up behind the barrier of sandhills, and floods either permanently or temporarily a large area (estimated at 100,000 acres in 1876 and at 12,019 acres in 1904) of salt marshes. Beyond spreads a central alluvial belt of highly cultivated land, with a width of about 60 miles in the north, where the river Tāpti, carrying down a deposit of loam, forms a deep and fertile delta; but as the coast-line

trends towards the south, the hills at the same time draw nearer to the coast, and restrict the alluvial country to a breadth of little more than 15 miles on the Damān border. The deep loam brought down by the Tāpti gives a level aspect to the northern tract; but farther south, a number of small and rapid rivers have cut themselves ravine-like beds, between which lie rougher uplands with a scantier soil and poorer vegetation. In the hollows, and often on the open plain, rich deposits of black cotton soil overlie the alluvium. The eastern border of the District consists of less fruitful lands, cut up by small torrents, and interspersed with mounds of rising ground. Here the huts of an ill-fed and almost unsettled peasantry replace the rich villages of skilled cultivators in the central lowland. On the border, this wild region passes gradually into the hills and forests of the DĀNGS, an unhealthy jungle which none but the aboriginal tribes can inhabit save at special periods of the year. The Dāngs are leased from Bhīl chiefs.

The average elevation of the District is not much more than 150 feet above sea-level. In the north are chains of flat-topped hills which reach a height of between 200 and 300 feet; south of the Tāpti a series of high lands separate the plains of Surat from those of Khāndesh. Five miles from the ruined fort of Pārdi is the hill of PĀRNERA, with an estimated elevation of 500 feet above the sea. Except the Kīm and the Tāpti in the north, the District has no large rivers; but in the south are deep and navigable creeks, which form admirable outlets for produce, and supply a secure shelter to the smaller coasting craft. The Kīm rises in the Rājpīpla hills and, after a course of 70 miles, falls into the Gulf of Cambay. Its waters are useful for neither navigation nor irrigation. The Tāpti gives rise to the largest alluvial lowland in the District; but its frequent floods have caused great loss of life and damage to property. The course of this river through Surat District is 50 miles in a direct line, but 70 miles including windings. For 32 miles it is tidal, and passes through a highly cultivated plain, but it is navigable only as far as Surat, 20 miles from its mouth. The Warli is a considerable tributary. Of creeks, the northernmost formed by the Sīna river has on its right bank, about 4 miles from the coast, the harbour of Bhagva. Farther south, about 8 miles north of the Tāpti mouth, the Tena creek runs inland for about 8 miles. Four miles north of the Ambika in the west of Jalālpur is the large inlet known as the Kanai creek. The District contains no natural lakes, but reservoirs or tanks cover a total area of 16 square miles. With one exception they consist of small ponds, formed by throwing horse-shoe embankments across the natural lines of drainage, and are used for irrigation. The reservoir at Pālan has an area of 153 acres.

Three geological formations occur in the lands of Surat District.

Of these, the lowest is the Deccan trap; the middle is the Tertiary, represented by gravel, conglomerates, sandstone, and limestone, with and without Nummulites; the highest is the recent, represented by cotton soil, alluvium, and river-beds. The Deccan trap extends from the hilly country on the east as far west as Tadkesar, about 22 miles north-east of the city of Surat. From Tadkesar, though its limit is concealed by the alluvium of the plains, the trap appears to strike south by west, coming out upon the sea-shore near Bulsār. The formation consists mostly of basalt flows with some intercalations of laterite, intersected by numerous dikes, most of them porphyritic. Intervening between the trap and the Tertiary is laterite, which is also interbedded with the lower beds of the Tertiary. The Tertiary includes representatives of the groups known in Sind as Upper Kīrthar (Spīntangi of Baluchistān), Gaj, and Manchhar (Siwāliks of the sub-Himālayas). The Tertiary beds spread in gentle undulations under a large portion of the District. In every case they form a fringe to the rocky trap country and border the alluvium of Gujarāt, by which on the west they are concealed. The lower beds of the series, those which correspond with the upper part of the Kīrthar group in Sind, are of middle eocene age (Lutetian). They contain bands of limestone, usually sandy and impure, abounding in Nummulites and other fossils, resting on laterite and containing numerous intercalations, towards their base, of ferruginous lateritic clays. The Nummulitic series includes beds of agate conglomerate, apparently of considerable thickness. The upper beds, including representatives of the Gaj and Manchhar, are principally of miocene age. They consist of gravel with a large proportion of agate pebbles, sandy clays, and calcareous sandstone, frequently nodular. The gravels are often cemented into a conglomerate. Fossils both of marine and terrestrial origin occur in some of the beds. Alluvium extends over a considerable portion of the District, concealing and covering up the rocks in the low ground, and forming the high banks which overhang all the larger streams at a little distance from the sea. Throughout almost the entire District the surface of the ground consists of 'black soil,' resulting from the decomposition of the basalt or of an alluvium largely made up of basaltic materials. In Surat, as in nearly all the lands surrounding the Gulf of Cambay, the wells often yield brackish water, owing to the presence of salt in the Tertiary sediments, principally in those of the upper division[1].

The common toddy-yielding wild date-tree grows more or less freely over the whole District. Near village sites and on garden lands, groves of mango, tamarind, banian, *limbdo* (*Melia Azadirachta*), *pīpal* (*Ficus*

[1] A. B. Wynne, 'Geological Notes on the Surat Collectorate,' *Records, Geological Survey of India*, vol. i, pp. 27–32; W. T. Blanford, 'Geology of the Taptee and Lower Nerbudda,' *Memoirs, Geological Survey of India*, vol. vi, pt. iii.

religiosa), and other fruit and shade trees are commonly found. The mangoes of some Surat gardens approach the Bombay '*Alphonso*' and '*Pairi*' in flavour and sweetness. There are no good timber trees. The *babūl* is found in small bushes in most parts of the District, springing up freely in fields set apart for the cultivation of grass. Wild flowering-plants are not numerous, the commonest being *Hibiscus*, *Abutilon*, *Sida*, *Clerodendron*, *Phlomis*, *Salvadora*, *Celosia*, and *Leucas*.

The fauna of Surat includes a few tigers, stragglers from the jungles of Bānsda and Dharampur, besides leopards (which are found throughout the District), bears, wild hog, wolves, hyenas, spotted deer, and antelope. Otters and grey foxes are also met with. Duck, wild geese, teal, and other wild-fowl abound during the cold season on the ponds and reservoirs; and hares, partridges, and quail are common.

The climate varies greatly with the distance from the sea. In the neighbourhood of the coast, under the influence of the sea-breeze, which is carried up the creeks, an equable temperature prevails; but from 8 to 10 miles inland the breeze ceases to blow. The temperature rises in places to 109° in April, the minimum being 44° in December. The mean temperature at Surat city is 82°.

The coast possesses a much lighter rainfall than the interior, the annual average ranging from 35 inches in Chorāsi to 72 inches in Pārdi. The average at Surat city for the twenty-five years ending 1903 amounted to 39·5 inches. In the District it varies from 38 to 80 inches. Pārdi in the south and Māndvi in the north-east have a bad reputation for unhealthiness, as shown by the proverb, 'Bagvāda is half death; Māndvi is whole death.'

History.

Surat was one of the earliest portions of India brought into close relations with European countries, and its history merges almost entirely into that of its capital, long the greatest maritime city of the peninsula. Ptolemy, the Greek geographer (A.D. 150), speaks of the trade centre of Pulipula, perhaps Phulpāda, the sacred part of Surat city. The city itself appears to be comparatively modern, though the Musalmān historians assert that at the commencement of the thirteenth century Kutb-ud-dīn, after defeating Bhīm Deo, Rājput king of Anhilvāda, penetrated as far south as Rānder and Surat. The District then formed part of the dominions ruled over by a Hindu chief, who fled from his fortress at Kānrej, 13 miles east of Surat city, and submitted to the Musalmān conqueror, so obtaining leave to retain his principality. In 1347, during the Gujarāt rebellion in the reign of Muhammad bin Tughlak, Surat was plundered by the troops of the king. In 1373 Fīroz Tughlak built a fort at Surat to protect the place against the Bhīls. During the fifteenth century no notice of Surat occurs in the chronicles of the

Musalmān kings of Ahmadābād. Tradition generally assigns the foundation of the modern city to the beginning of the sixteenth century, when a rich Hindu trader, Gopī by name, settled here, and made many improvements. As early as 1514 the Portuguese traveller Barbosa describes Surat as a very important seaport, 'frequented by many ships from Malabar and all other parts.' Two years before the Portuguese had burnt the town, an outrage which they repeated in 1530 and 1531. Thereupon the Ahmadābād king gave orders for building a stronger fort, completed about 1546. In 1572 Surat fell into the hands of the Mirzas, then in rebellion against the emperor Akbar. Early in the succeeding year Akbar arrived in person before the town, which he captured after a vigorous siege. For 160 years the city and District remained under the administration of officers appointed by the Mughal court. During the reigns of Akbar, Jahāngīr, and Shāh Jahān, Surat enjoyed unbroken peace, and rose to be one of the first mercantile cities of India. In Akbar's great revenue survey the city is mentioned as a first-class port, ruled by two distinct officers.

After 1573 the Portuguese remained undisputed masters of the Surat seas. But in 1608 an English ship arrived at the mouth of the Tāpti, bringing letters from James I. to the emperor Jahāngīr. Mukarrab Khān, the Mughal governor, allowed the captain to bring his merchandise into the town. Next year a second English ship arrived off Gujarāt, but was wrecked on the Surat coast. The Portuguese endeavoured to prevent the shipwrecked crew from settling in the town, and they accordingly went up to Agra with their captain. In 1609 the son of the last Musalmān king of Ahmadābād attempted unsuccessfully to recover Surat from the Mughals. Two years later a small fleet of three English ships arrived in the Tāpti; but as the Portuguese occupied the coast and entrance, the English admiral, Sir H. Middleton, was compelled to anchor outside. Small skirmishes took place between the rival traders, until in the end the English withdrew. In 1612, however, the governor of Gujarāt concluded a treaty, by which the English were permitted to trade at Surat, Cambay, Ahmadābād, and Gogha. After a fierce fight with the Portuguese, they made good their position, established their first factory in India, and shortly afterwards obtained a charter (*farmān*) from the emperor. Surat thus became the seat of a presidency of the East India Company. The Company's ships usually anchored in a roadstead north of the mouth of the Tāpti, called in old books 'Swally' or 'Swally Hole,' but correctly SUVĀLI. Continued intrigues between the Portuguese and the Mughals made the position of the English traders long uncertain, till Sir Thomas Roe arrived in 1615, and went on to Ajmer, where Jahāngīr then held his court. After three years' residence there, Roe returned to the coast in 1618, bringing important privileges for the English. Mean-

while the Dutch also had made a settlement in Surat, and obtained leave to establish a factory.

Early travellers describe the city as populous and wealthy, with handsome houses and a busy trade. The fifty years between the establishment of the English and Dutch and the accession of Aurangzeb were remarkable for increasing prosperity. With the access of wealth the city improved greatly in appearance. During the busy winter months lodgings could hardly be obtained owing to the influx of people. Caravans passed between Surat and Golconda, Agra, Delhi, and Lahore. Ships arrived from the Konkan and the Malabar coast; while from the outer world, besides the flourishing European trade, merchants came from Arabia, the Persian Gulf, Ceylon, and Acheen in Sumatra. Silk and cotton cloth formed the chief articles of export. European ships did not complete the lading and unlading of their cargoes at Surat; but having disposed of a part of their goods, and laid in a stock of indigo for the home market, they took on board a supply of Gujarāt manufactures for the eastern trade, and sailed to Acheen and Bantam, where they exchanged the remainder of their European and Indian merchandise for spices. The Dutch in particular made Surat their principal factory in India, while the French also had a small settlement here.

Under Aurangzeb the District suffered from frequent Marāthā raids, which, however, did little to impair its mercantile position. The silting up of the head of the Cambay Gulf, the disturbed state of Northern Gujarāt, and the destruction of Diu by the Maskat Arabs in 1670, combined to centre the trade of the province upon Surat. Its position as 'the gate of Mecca' or the 'blessed port' (*Bandar Mubarak*) was further increased in importance by the religious zeal of Aurangzeb. But the rise of the predatory Marāthā power put a temporary check on its prosperity. The first considerable Marāthā raid took place in 1664, when Sivajī suddenly appeared before Surat, and pillaged the city unopposed for three days. He collected in that short time a booty estimated at a million sterling. The English and Dutch factories were bravely defended by their inmates, who succeeded in saving a portion of the city. Encouraged by this success, the Marāthā leader returned in the year 1669, and once more plundered Surat. Thenceforward for several years a Marāthā raid was almost an annual certainty. The Europeans usually retired to their factories on these occasions, and endeavoured, by conciliating the Marāthās, to save their own interests. Nevertheless the city probably reached its highest pitch of wealth during this troublous period at the end of the seventeenth century. It contained a population estimated at 200,000 persons, and its buildings, especially two handsome mosques, were not unworthy of its commercial greatness. In 1695 it is described as 'the

prime mart of India,—all nations of the world trading there; no ship trading in the Indian Ocean but what puts into Surat to buy, sell, or load.'

But the importance of Surat to the English East India Company declined considerably during the later part of Aurangzeb's reign, partly owing to the growing value of Bombay, and partly to disorders in the city itself. In 1678 the settlement was reduced to an agency, though three years later it once more became a presidency. In 1684 orders were received to transfer the chief seat of the Company's trade to Bombay—a transfer actually effected in 1687. During the greater part of this period the Dutch were the most successful traders in Surat.

From the death of Aurangzeb in 1707, the authority of the Delhi court gradually declined, and the Marāthās established their power up to the very walls of Surat. The governors nominally appointed by the Mughals employed themselves chiefly in fighting with the Hindu intruders for the country just beyond the gates. At length, in 1733, Teg Bakht Khān, governor of the city, declared himself independent; and for twenty-seven years Surat remained under a native dynasty. For the first thirteen years of this period Teg Bakht Khān maintained unbroken control over the city; but after his death in 1746 complete anarchy for a time prevailed. The English and Dutch took an active part in the struggles for the succession, sometimes in concert and sometimes as partisans of the rival competitors. In 1759 internal faction had rendered trade so insecure that the authorities at Bombay determined to make an attack upon Surat, with the sanction of the Marāthās, now practically masters of Western India. After a slight resistance the governor capitulated, and the English became supreme in Surat. For forty-one years the government of the new dependency was practically carried on by the conquerors, but the governors or Nawābs still retained a show of independence until 1800. The earlier years of English rule brought prosperity again to the city, which increased in size, owing partly to the security of British protection and partly to the sudden development of a great export trade in raw cotton with China. The population of the city was estimated at 800,000 persons, though this figure is doubtless excessive. Towards the close of the century, however, the general disorder of all Central and Western India, and the repeated wars in Europe, combined to weaken its prosperity. Two local events, the storm of 1782 and the famine of 1790, also contributed to drive away trade, the greater part of which now centred in Bombay.

In 1799 the last nominally independent Nawāb died, and an arrangement was effected with his brother by which the government became wholly vested in the British, the new Nawāb retaining only the title and a considerable pension. The political management of Surat,

up to May 14, 1800, had first been under an officer styled 'Chief for the Affairs of the British Nation, and Governor of the Mughal Castle and Fleet of Surat,' and subsequently under a lieutenant-governor. The last of these was Mr. Daniel Seton, whose monument is in the cathedral at Bombay. By the proclamation of Jonathan Duncan, dated May 15, 1800, Surat District was placed under a Collector, Mr. E. Galley, and a Judge and Magistrate, Mr. Alexander Ramsay, one of whom, generally the Judge, was also in political charge of the titular Nawābs and the small chiefs in the neighbourhood as Agent to the Governor of Bombay. The arrangements of 1800 put the English in possession of Surat and Rānder. Subsequent cessions under the Treaties of Bassein (1802) and Poona (1817), together with the lapse of the Māndvi State in 1839, brought the District into its present shape. The title of Nawāb became extinct in 1842. Since the introduction of British rule Surat has remained free from external attacks and from internal anarchy, the only considerable breach of the public peace having been occasioned by a Musalmān disturbance in 1810. During the Mutiny of 1857 Surat enjoyed unbroken tranquillity, due in great measure to the steadfast loyalty of its leading Muhammadan family, that of the late Saiyid Edroos.

The District contains many buildings upwards of three centuries old. Some of the mosques have been constructed out of Jain temples, as, for example, the Jāma Masjid, the Miān, Kharwa, and Munshi's mosque at Rānder. Specimens of excellent wood-carving are to be found on many of the older houses in Surat city. There are famous Dutch and English cemeteries outside the city. Vaux's tomb at the mouth of the Tāpti deserves mention. The tomb bears no inscription, but in the upper part is a chamber used by the English in former times as a meeting-place for parties of pleasure. Vaux was a book-keeper to Sir Josiah Child, and finally rose to be Deputy-Governor of Bombay. He was drowned in the Tāpti in 1697.

Population.

The Census of 1851 returned the total number of inhabitants at 492,684. The population at each of the last four enumerations was: (1872) 607,087, (1881) 614,198, (1891) 649,989, and (1901) 637,017. The decline in the last decade was due to the famine of 1899–1900. The area, population, &c., of the eight *tālukas* in 1901 are given in the table on the next page.

The District contains 770 villages and 8 towns, the largest being SURAT CITY, the head-quarters and chief commercial centre, BULSĀR, RĀNDER, BĀRDOLI, and PĀRDI. The density of population is 385 persons per square mile, and it thus stands second for density among the 24 Districts of the Presidency. The Māndvi *tāluka* is sparsely peopled, on account of the unhealthiness of the climate. The language in ordinary use is Gujarāti, spoken by 608,254, or 95 per cent.

of the population. Hindus form 86 per cent. of the total; Musalmāns, 8 per cent.; Pārsīs and Jains, 2 per cent. each.

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Olpād	323	1	118	58,748	182	− 12	10,328
Māndvi	279	1	136	42,450	152	− 21	2,768
Chorāsi	102	2	65	169,100	1,658	+ 6	35,121
Bārdoli	222	1	123	80,678	363	− 4	8,841
Jalālpur	188	...	91	81,182	432	+ 3	10,362
Chikhli	168	1	61	59,692	355	− 8	4,911
Bulsār	208	1	95	83,176	401	− 5	7,808
Pārdi	163	1	81	61,691	378	+ 6	5,554
District total	1,653	8	770	637,017	385	− 2	85,693

The chief cultivating castes are the Anavla Brāhmans (25,000), Kunbīs (38,000), and Kolīs (100,000). Rājputs (9,000), Musalmān Bohrās (15,000), and a few Pārsīs are also to be found among agriculturists. Of the aboriginal races, Dublas (78,000) with their numerous sections, Dhodias (51,000), and Chodhras (30,000) are the most important. The leading artisan classes are Ghānchis (oilmen, 12,000), Golas (rice-huskers, 8,000), Khattrīs (weavers, 11,000), and Kumbhārs (potters, 11,000). The Vānīs or traders number 12,000. Among depressed classes, the Dhers (30,000) are numerically important. The Dhers of Surat are active and intelligent, and are largely employed by Europeans as domestic servants. Surat, in spite of the commercial importance of its chief town, is still essentially a rural District. Nearly 60 per cent. of the population are supported by agriculture, while the industrial class forms 35 per cent.

The Christian population of Surat District in 1901 was 1,092. Of these, about 600 are native Christians. A branch of the Irish Presbyterian Mission has been established in Surat city since 1846, and maintains 2 high schools, 18 primary schools, an orphanage with 125 inmates, and a printing-press, established by the London Missionary Society in 1820, which published thirty-six English and vernacular books in 1904. In 1894 the Dunker Brethren, an American mission, was established at Bulsār, and now maintains an orphanage, a technical school, and several village schools.

Agriculture.

The soils, all more or less alluvial in character, belong for agricultural purposes to three chief classes: black, light, and the *besar* or medium. Apart from the Olpād *tāluka*, where black soil is most common, two broad belts of black soil run through the District. Of these, one passes along the sea-coast,

the other through the Pārdi and Chikhli *tālukas* near the foot of the eastern hills. Light soil is commonest near the banks of the Tāpti, Ambika, and Auranga rivers. This is the richest soil of the District, producing in rapid succession the most luxuriant crops. Patches of *besar* are to be found in almost every part of the District. The most striking feature in agriculture is the difference between the tillage of the *ujli* or fair races, and that of the *kāla* or dark aboriginal cultivators. The dark races ordinarily use only the rudest processes; grow little save the coarser kinds of grain, seldom attempting to raise wheat or millet; and have no implements for weeding or cleaning the fields. After sowing their crops they leave the land, and only return some months later for the harvest. As soon as they have gathered in their crops, they barter the surplus grain for liquor. In the more settled parts of the District, however, the dark races are now improving their mode of tillage. The fair cultivators, on the other hand, who own the rich alluvial soil of the lowlands, are among the most industrious and intelligent in Western India.

The District is almost entirely *ryotwāri*, with some *inām* lands. The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Olpād	312	190	5	9	...
Māndvi	280	150	...	31	63
Chorāsi	114	83	1	2	...
Bārdoli	222	195	2	2	1
Jalālpur	186	120	4	5	...
Chikhli	168	133	4	13	1
Bulsār	208	162	4	10	4
Pārdi	163	141	2	1	3
Total	1,653*	1,174	22	73	72

* The area for which statistics are not available is 36 square miles. The figures of area are based upon the latest information.

Rice and *jowār* are the staple crops, with an area of 157 and 172 square miles respectively. Rice is grown chiefly on the black or red soil in the neighbourhood of tanks or ponds, with *vāl* or castor oil as a second crop. *Jowār* is largely grown in the northern part of the District. Cotton covers 154 square miles, chiefly in the Tāpti valley; it is also spreading south. *Kodra* forms the food of the poorest classes. Among pulses the most important is *tur* (37 square miles); *vāl* occupies 74 square miles. Wheat and *bājra* occupy 56 and 14 square miles respectively. In the south of the District castor oil is extensively cultivated. Efforts have from time to time been made to improve the staple of the local cotton, and an improved variety of sugar-cane from

Mauritius was introduced in 1836. It is now the favourite crop in irrigated land in the Jalālpur and Bulsār *tālukas*. There is an experimental farm in the District, but the results so far attained are not sufficiently important to claim notice. During the decade ending 1903-4, nearly 9 lakhs were advanced to cultivators for land improvements and the purchase of seed and cattle, of which 4·1 lakhs was lent in 1899-1900 and 2·5 lakhs in the two succeeding years.

The indigenous or *talabda* bullock is generally of medium size, and is used chiefly for agricultural purposes. The large muscular bullocks or *hedia* are brought from Northern Gujarāt. A third class of bullock, small but hardy and swift, is much used in harness. The cows and buffaloes of the District are much esteemed—the cows for their appearance and the buffaloes for their yield of milk.

The Bulsār *tāluka* is famous for its breed of *patiri* goats, which are good milkers, and are highly prized in Bombay.

Of the total cultivated area, 22 square miles, or 3 per cent., were irrigated in 1903-4: 13 from tanks and 9 from wells. The chief sources are: Government works, 301 in number; wells, 7,147; tanks, 1,114; 'others,' 42. Of the total irrigated area, about 3,200 acres are under sugar-cane.

There are no fresh-water fisheries, but the rivers contain fish of large size. The sea fisheries employ a fleet of many hundred boats.

Though on the whole well clothed with trees, the District does not possess many revenue-yielding trees, except toddy-palms, which are tapped for liquor. In the Chikhli *tāluka* a small area under teak has been set apart as a forest Reserve. A rough hilly tract in the east and north-east of Māndvi is the only area suitable for forest. The total area of forests is 72 square miles, which is almost entirely in the charge of the Forest department, represented by a divisional Forest officer assisted by an Extra-Assistant Conservator. The forest revenue in 1903-4, including the revenue from the Dāngs, was Rs. 37,500.

Surat is well supplied with building stone. Good material for road metal, though scarce, can be obtained at from Rs. 3 to Rs. 3½ per 100 cubic feet from Pārdi and Bulsār. Ironstone is common, but iron is not worked. Metallic sand accumulates at the mouths of rivers, and is used instead of blotting-paper by the writing classes. Agate or carnelian, locally known as *hakik*, is obtained from the trap and sold to the lapidaries of Cambay.

Trade and communications.

The brocades of Surat, worked with gold and silver flowers on a silk ground, had a reputation in former times. Surat city was also famed for its coarse and coloured cottons, while Broach had a name for muslins. From Surat also came elegant targets of rhinoceros hide, which was brought over from Africa, and polished in Surat until it glistened like tortoise-shell.

The shield was studded with silver nails and then sold at a price varying from Rs. 30 to Rs. 50. Ship-building was at one time an important industry, to a great extent in the hands of the Pārsīs. The largest vessels were engaged in the China trade, and were from 500 to 1,000 tons burden. Many of the ships were built on European lines. They were mostly manned by English crews and flew the English flag. The sea-borne trade from the ports has greatly fallen off of late years. The industries of Surat city suffered from the damage done to the houses and workshops in the great fire of 1889, when property valued at 25 lakhs was destroyed. At the present time the weaving of cotton and silk goods is the chief industry of the District. There are three steam factories in Surat city, containing 34,290 spindles and 180 looms, which spin and weave annually nearly 3 million pounds of cotton yarn and about half a million pounds of cotton cloth. They employ 1,288 persons. Except among the aboriginal tribes, hand-weaving is everywhere common. Silk brocades and embroideries are still manufactured in Surat city. They have a widespread reputation, and exhibit skill of a high order. Nowhere in the Presidency are finer fabrics woven on hand-looms. There is one salt-work in the District, which yields annually 300,000 maunds, valued at 6½ lakhs.

Trade centres chiefly in the towns of Surat and Bulsār, as well as in the seaport of BILIMORĀ (Baroda territory). The total value of the exports from the seven seaports which afforded an outlet for the produce of the District in 1874 amounted to nearly 44½ lakhs, and that of the imports to 7 lakhs. These figures include the value of commodities shipped and received at Baroda ports. The two principal seaports are Surat city and Bulsār. The value of the exports from these taken together was 13 lakhs in 1903–4; and of the imports about 18 lakhs. The exports include grain, cotton, pulse, *mahuā* fruit, timber, and bamboos; the imports include tobacco, cotton-seed, iron, coco-nuts, and European goods.

There are 462 miles of road, of which 100 miles are metalled, connecting the principal towns with the railway. Of the metalled roads, 2½ miles of provincial and 70½ of local roads are maintained by the Public Works department. Avenues of trees are maintained along 190 miles. The only important bridges for cart traffic are those over the Tāpti at Surat, and over the Tena creek near Olpād. The Bombay, Baroda, and Central India Railway runs through the District parallel to the coast for about 60 miles, crossing the Tāpti at Surat city on a fine iron-girder bridge. The Tāpti Valley Railway, 155 miles in length, which joins Surat to the Great Indian Peninsula system at Amalner in Khāndesh District, was opened in 1900. It traverses the District for 11 miles.

History records severe famine in the years 1623, 1717, 1747, and

1803. From the commencement of British rule, however, until 1899 no famine was sufficiently intense to cause suffering to the people.

Famine.

Owing to the failure of the late rains in 1899 distress rapidly developed; and, in December of that year, there were 4,700 persons on relief works. By March, 1900, the number had increased to 15,000. In July, 1900, there were 35,000 on the works, including 29,000 in receipt of gratuitous relief. Surat, however, escaped the severity of the famine in the adjoining Districts. The total increase in the number of deaths from all causes during the famine was 30,000, and the population decreased 2 per cent. between 1891 and 1901. The total expenditure in connexion with famine relief in this and the adjacent District of Broach exceeded 48½ lakhs, and 4 lakhs of land revenue was remitted in Surat District. It is calculated that over 50,000 cattle perished in the drought. Floods on the Tāpti river have frequently caused great damage to SURAT CITY, in the article on which some particulars of the most disastrous floods are given.

Administration.

The District is divided into three subdivisions, in charge of an Assistant Collector and two Deputy-Collectors. It contains 8 *tālukas*: namely, BĀRDOLI, BULSĀR, CHIKHLI, CHORĀSI, JALĀLPUR, MĀNDVI, OLPĀD, and PĀRDI. Bārdoli includes the petty subdivision (*petha*) of Vālod. The Collector is Political Agent for Sachīn State, which is administered by the Assistant Collector, subject to his control. The States of Bānsda and Dharampur and the Dāngs estate are also under his political control, the Assistant Political Agent for the latter estate being the divisional Forest officer.

The District and Sessions Judge, with whom is associated a Judge of a Small Cause Court, is assisted by one Assistant Judge and four Subordinate Judges, sitting one at Olpād, two at Surat, and one at Bulsār. There are twelve officers to administer criminal justice. The city of Surat forms a separate magisterial charge under a City Magistrate. The District is remarkably free from crime, offences against the excise law being the most numerous.

At the time of annexation, the *garāsiās*, or large landowners of Surat, claimed, as the representatives of the original Hindu proprietors, a share of the land revenue, and levied their dues at the head of an armed force. In 1813 Government undertook to collect the amount of these claims by its own officers. In addition to the *garāsiās*, there were numerous *desais* or middlemen to whom the land revenue was farmed under the old régime. To decrease the power and influence of these *desais*, the British Government (1814) appointed accountants to each village, who collected the revenue direct from the cultivators, thus rendering the practice of farming unnecessary. No change was made in the old rates until 1833, when, in consequence of the fall in prices, they were revised and considerably reduced. In 1836 committees were appointed to divide the

soil into classes and fix equitable rates; and between 1863 and 1882 the survey settlement was introduced, which raised the total revenue demand from 18¾ to 21½ lakhs. A revision was made between 1897 and 1905. The new survey found an excess in the cultivated area of 4 per cent. over the amount shown in the accounts, and the settlement enhanced the total revenue by 4 per cent., or nearly one lakh. The average rates of assessment are: 'dry' land, Rs. 2–11 (maximum scale, Rs. 7–8; minimum scale, R. 1); rice land, Rs. 8–1 (maximum scale, Rs. 7–8; minimum scale, Rs. 1–4); and garden land, Rs. 8–11 (maximum scale, Rs. 12; minimum scale, Rs. 5).

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	30,63	27,62	22,55	30,80
Total revenue . .	41,29	49,65	42,74	55,26

There are four municipalities in the District: namely, SURAT, RĀNDER, BULSĀR, and MĀNDVI. Outside of these, local affairs are managed by the District board and eight *tāluka* boards. The receipts of the local boards amounted in 1903–4 to about 3 lakhs, and the expenditure to 2½ lakhs, including one lakh spent on roads and buildings.

The District Superintendent of police is assisted by 2 inspectors. There are altogether 11 police stations. The total number of policemen is 881, under 11 chief constables, besides 14 mounted police under 2 *daffadārs*. There are 9 subsidiary jails and 9 lock-ups in the District, with accommodation for 208 persons. The daily average number of prisoners in 1904 was 69, of whom 5 were females.

Surat stands second among the twenty-four Districts of the Presidency for the literacy of its inhabitants, of whom 13·3 per cent. (24·5 males and 2·4 females) could read and write in 1901. In 1880–1 the District contained 293 schools with 19,363 pupils. The latter had increased to 28,658 in 1890–1, and to 31,902 in 1900–1. In 1903–4 the District possessed 480 schools, attended by 31,719 pupils, including 6,363 girls. Of these institutions, 6 are high schools, 26 middle, 341 primary, and one a special industrial school. Of the 374 public institutions, 2 are managed by Government, 312 by local or municipal boards, 36 are aided, and 24 unaided. The total expenditure on education in 1903–4 amounted to nearly 2½ lakhs, of which 64 per cent. was devoted to primary education.

In 1904 the District possessed one hospital and twelve dispensaries, including one for women at Surat. These institutions contain accommodation for 120 in-patients. Including 1,541 in-patients, the number of persons treated in 1904 was 86,000 and the number

of operations performed 2,721. The expenditure on medical relief was Rs. 39,000, of which Rs. 17,000 was met from Local and municipal funds.

The number of persons successfully vaccinated in 1903-4 was 16,091, representing the proportion of 25·3 per 1,000 of population, which is slightly above the average for the Presidency.

[Sir J. M. Campbell, *Bombay Gazetteer*, vol. ii (Surat and Broach) (1877).]

Surat City. — Head-quarters of Surat District, Bombay, and the former seat of a Presidency under the East India Company, situated in 21° 12′ N. and 72° 50′ E., on the southern bank of the river Tāpti; distant from the sea 14 miles by water, 10 miles by land. It was once the chief commercial city of India, and is still an important mercantile place, though the greater portion of its export and import trade has long since been transferred to Bombay. Surat is a station on the Bombay, Baroda, and Central India Railway, 167 miles from Bombay.

Population.

During the eighteenth century Surat probably ranked as the most populous city of India. As late as 1797 its inhabitants were estimated at 800,000 persons; and though this calculation is doubtless excessive, the real numbers must have been very high. With the transfer of its trade to Bombay the numbers rapidly fell off. In 1811 an official report returned the population at 250,000 persons, and in 1816 at 124,406. In 1847, when the fortunes of Surat reached their lowest ebb, the number of inhabitants amounted to only 80,000. Thenceforward the city began to retrieve its position. By 1851 the total had risen to 89,505; in 1872 it stood at 107,855; in 1881 at 109,844; in 1891 at 109,229; and in 1901 at 119,306. It is now the third largest city in the Presidency. The population in 1901 included 85,577 Hindus, 22,821 Muhammadans, 5,754 Pārsis, and 4,671 Jains. The Pārsis and high-caste Hindus form the wealthy classes; the Musalmāns are in depressed circumstances, except the Bohrās, many of whom are prosperous traders, and whose head, called 'the Mullā of the Bohrās,' resides here. Fondness for pleasure and ostentation characterize all classes and creeds in Surat alike. Caste feasts and processions are more common and more costly than elsewhere. Fairs, held a few miles away in the country, attract large crowds of gaily dressed men and children in bright bullock-carts. The Pārsis join largely in these entertainments, besides holding their own old-fashioned feasts in their public hall. The Bohrās are famous for their hospitality and good living. The extravagant habits engendered by former commercial prosperity have survived the wealth on which they were founded.

Surat lies on a bend of the Tāpti, where the river suddenly sweeps

westward towards its mouth. In the centre of its river-front rises the castle, a mass of irregular fortifications, flanked at each corner by large round towers, and presenting a picturesque appearance when viewed from the water. Planned and built in 1540 by Khudāwand Khān, a Turkish soldier in the service of the Gujarāt kings, it remained a military fortress under both Mughal and British rule till 1862, when the troops were withdrawn and the buildings utilized as public offices. With the castle as its centre, the city stretches in the arc of a circle for about a mile and a quarter along the river bank. Southward, the public park with its tall trees hides the houses in its rear; while on the opposite bank, about a mile up the river on the right shore, lies the ancient town of RĀNDER, now almost a suburb of Surat. Two lines of fortification, the inner and the outer, once enclosed Surat; and though the interior wall has nearly disappeared, the moat which marks its former course still preserves distinct the city and the suburbs. Within the city proper the space is on the whole thickly peopled; and the narrow but clean and well-watered streets wind between rows of handsome houses, the residences of high-caste Hindus and wealthy Pārsīs. The suburbs, on the other hand, lie scattered among wide open spaces, once villa gardens, but now cultivated as fields. The unmetalled lanes, hollowed many feet deep, form watercourses in the rainy season, and stand thick in dust during the rest of the year. The dwellings consist of huts of low-caste Hindus or weavers' cottages. West of the city, the site of the old military cantonment is now occupied by the police, whose parade ground stretches along the river bank. Suburban villas, the property of wealthy residents of the city, are springing up along the Dumas and Varāchha roads.

Situation.

The annals of Surat city, under native rule, have been briefly given in the article on SURAT DISTRICT. During the seventeenth and eighteenth centuries Surat ranked as the chief export and import centre of India. After the assumption of the entire government by the British in 1800, prosperity, which had deserted the city towards the close of the eighteenth century, for a time reappeared. But the steady transfer of trade to Bombay, combined with the famine of 1813 in Northern Gujarāt, continued to undermine its commercial importance; and by 1825 the trade had sunk to the export of a little raw cotton to the rising capital of the Presidency. In 1837 two calamities occurred in close succession, which destroyed the greater part of the city and reduced almost all its inhabitants to a state of poverty. For three days in the month of April a fire raged through the very heart of Surat, laying 9,373 houses in ruins, and extending over nearly 10 miles of thoroughfare, in both the city and the suburbs. No estimate can be given of the

History.

total loss to property, but the houses alone represented an approximate value of 45 lakhs. Towards the close of the rainy season in the same year, the Tāpti rose to the greatest height ever known, flooded almost the whole city, and covered the surrounding country for miles like a sea, entailing a further loss of about 27 lakhs. This second calamity left the people almost helpless. Already, after the fire, many of the most intelligent merchants, both Hindu and Pārsī, no longer bound to home by the ties of an establishment, had deserted Surat for Bombay. In 1838 it remained 'but the shadow of what it had been, two-thirds to three-fourths of the city having been annihilated.' From 1840 onward, however, affairs began to change for the better. Trade improved and increased steadily, till in 1858 its position as the centre of railway operations in Gujarāt brought a new influx of wealth and importance. The high prices which ruled during the American Civil War again made Surat a wealthy city. The financial disasters of 1865–6 in Bombay somewhat affected all Western India, but Surat nevertheless preserved the greater part of its wealth. In 1869 the municipality undertook a series of works to protect the city against floods. In 1883 Surat was again inundated, and damage caused to the extent of 20 lakhs. The loss of human life, however, was small. The city suffered from another extensive fire in 1889. At the present day, though the fall of prices has reduced the value of property, the well-kept streets, the public buildings, and large private expenditure, stamp the city, which has benefited by the construction of the Tāpti Valley Railway, with an unmistakable air of steady order and prosperity.

Buildings and tombs.

The English church, built in 1820 and consecrated by Bishop Heber on April 17, 1825, stands upon the river bank, between the castle and the custom-house, and has seats for about 100 persons. The Portuguese or Roman Catholic chapel occupies a site near the old Dutch factory. The Armenians once had a large church, now in ruins. The Musalmāns have several mosques, of which four are handsome buildings. The Nav Saiyid Sāhib's mosque stands on the bank of the Gopi lake, an old dry tank, once reckoned among the finest works in Gujarāt. Beside the mosque rise nine tombs in honour of nine warriors, whose graves were miraculously discovered by a local Muhammadan saint. The Saiyid Edroos mosque, with a minaret, which forms one of the most conspicuous buildings in Surat, was built in 1639 by a rich merchant, in honour of an ancestor of Shaikh Saiyid Husain Edroos, C.S.I., who died in 1882. The Mirza Sāmi mosque and tomb, ornamented with carving and tracery, was built about 1540 by Khudāwand Khān. The Pārsīs have two chief fire-temples for their two subdivisions. The principal Hindu shrines perished in the fire of 1837, but have since been rebuilt by pious inhabitants. Gosāvi Mahārājā's temple, built in 1695, was

renewed after the fire at a cost of Rs. 1,50,000. Two shrines of Hanumān, the monkey-god, are much respected by the people. Specimens of excellent wood-carving are to be found on many of the older houses.

The tombs of early European residents, including those of the Dutch, and the more modern ones of the Mullās of the Bohrās, form some of the most interesting objects in Surat. Among the first named are those of many of the English 'Chiefs of Surat.' On the right of the entrance to the English cemetery is the handsome mausoleum of Sir George Oxenden and his brother Christopher. It is a large two-storeyed square building with columns at each angle; in the two eastern ones are staircases to the upper storey, over which is a skeleton dome of masonry in the form of a Maltese cross rendered convex. Christopher died on April 18, 1659; and Sir George, who in a long Latin epitaph is styled 'Anglorum in India, Persia, Arabia, Praeses, Insulae Bombayensis Gubernator,' died on July 14, 1669, aged 50. The earliest tomb is that of Francis Breton, President of Surat, who died on July 21, 1649. Among the many tombs with curious inscriptions is one to 'Mary, the wife of Will. Andrew Price, chief of the Affairs of Surat, &c.,' who, it is said, 'through the spotted veil of the small-pox, rendered a pure and unspotted soul to God,' April 13, 1761, *aetat.* 23. The tombs have been carefully looked after of late years. In the Dutch cemetery, which adjoins the English, there are also some curious and handsome tombs. One in particular to Baron Van Reede, Commissary-General of the United Netherlands East India Company for India, who died on December 15, 1691, once cost the Company Rs. 9,000 for repairs. Other buildings of historic interest in Surat are the English and Portuguese factories, and the house occupied by the Sadr Adālat before its transfer to Bombay.

Trade.

The sea-borne trade of Surat has declined from a total estimated value of 156 lakhs in 1801 to 30 lakhs in 1903-4; namely, imports 17¾ lakhs and exports 12¼. The export trade is markedly decreasing. The principal articles of export are agricultural produce and cotton. The land-borne trade, however, since the opening of railway communication with Bombay and the interior, has increased considerably. The port of Surat used to be at Suvāli, 12 miles west the city; but the sea-borne trade is now carried in small country craft which pass up the river to Surat. The station of the Bombay, Baroda, and Central India Railway is outside the city, surrounded by a rising suburb.

The organization of trade-guilds is highly developed in Surat. The chief of these guilds, composed of the leading bankers and merchants, is called the *Mahājan* or banker-guild. Its funds, derived from fees on cotton and on bills of exchange, are spent partly on animal hospitals

and partly on the temples of the Vallabhāchārya sect. The title and office of Nagarseth, or chief merchant of the city, hereditary in a Srāwak or Jain family, has for long been little more than a name. Though including men of different castes and races, each class of craftsmen has its trade-guild or *panchāyat*, with a headman or referee in petty trade disputes. They have also a common purse, spending their funds partly in charity and partly in entertainments. A favourite device for raising money is for the men of the craft or trade to agree to shut all their shops but one on a certain day. The right to keep open this one shop is then put up to auction, and the amount bid is credited to the guild fund. There is a considerable hand industry in the spinning and weaving of cotton cloth, some of the very finest textures in Gujarāt being made here. Three mills have also been opened in the city, one of these having commenced work as early as 1866. The nominal capital of the mills in 1904 was nearly 20 lakhs, and there were 180 looms and 34,290 spindles at work, employing 1,288 persons daily.

Administration.

The municipality was established in 1852. The receipts during the ten years ending 1901 averaged 5 lakhs. In 1903–4 the income was Rs. 4,85,900, chiefly derived from octroi ($1\frac{3}{4}$ lakhs), tax on houses and land (nearly $\frac{1}{2}$ lakh), and other taxes ($1\frac{1}{2}$ lakhs). The expenditure was $4\frac{1}{2}$ lakhs, including general administration and collection of taxes (Rs. 31,000), public safety (Rs. 23,000), water and public health and conservancy (2 lakhs), and public institutions (Rs. 25,000). The municipality has opened a number of excellent roads, well lighted, paved, and watered. It has constructed works for the protection of the city from floods, and for lessening the risk of fire. Systems of drainage, conservancy, and public markets have also been undertaken.

Two hospitals provide for the indigent poor; and there is one such institution for sick or worn-out animals. The clock-tower on the Delhi road, 80 feet in height, was erected in 1871 at the expense of Khān Bahādur Barjorjī Merwānjī Frazer. The Andrews Library is well patronized. In 1903–4 there were 4 high schools with 1,315 boys, and a mission high school with 56 girls. Of these schools, one is a Government high school with accommodation for 500, established in 1842. There were also 4 middle schools and an industrial school, with 412 and 88 pupils, respectively; 25 vernacular schools for boys with 4,693 pupils, and 16 for girls with 1,659 pupils. There are 5 printing presses and 5 weekly newspapers. Besides the Collector's and Judge's courts, the town contains a Small Cause court, two Subordinate Judges' courts, a civil hospital, a hospital for women and children, and a dispensary. The hospital is a handsome building of two storeys with a clock-tower. In the municipal gardens stands

the Winchester Museum, which contains specimens of Surat silks and embroidery, and a few samples of forest produce.

Sūratgarh.—Head-quarters of a *tahsīl* and *nizāmat* of the same name in the State of Bīkaner, Rājputāna, situated in 29° 20′ N. and 73° 54′ E., on the left bank of the Ghaggar river, and on the Jodhpur-Bīkaner Railway, 113 miles north-by-north-east of Bīkaner city, and 88 miles south-west of Bhatinda. Population (1901), 2,398. The town is named after Mahārājā Sūrat Singh (1788–1828), who is said to have founded it about 1800. It possesses a fort, a post office, a vernacular school attended by 62 boys, and a hospital with accommodation for 7 in-patients. Two miles to the north-east are the ruins of Rang Mahal, said to have been the capital of a Johiya Rājput chief; a step-well made of bricks 2½ feet square has been found here. The *tahsīl* contains 126 villages, and was formerly called Sodhawati, as it was part of the territory occupied by the Sodha Rājputs. They were, however, expelled by the Bhāti Rājputs, and the majority of the population are now Jāts and Rāths.

Surgāna.—A petty Kolī State situated in the north-west corner of Nāsik District, Bombay, with an estimated area of 360 square miles. Like the Dāngs, Surgāna State is full of spurs of hills and waving uplands, once covered with dense forest, now partly cleared and stripped of most of their valuable timber. The chief forest trees are teak, black-wood, *khair*, and *tivas*. Minor forest products include fruit, gums, honey, lac, and roots. Except in April and May the climate is unhealthy, and in the hot season water is scarce and bad. The annual rainfall averages 70 inches.

The ancestors of the Surgāna *deshmukh* appear to have been Kolīs, who lived in the fastnesses round Hātgarh. During Muhammadan rule a nominal allegiance was claimed from them, and they were entrusted with the duties of preventing the wild Bhīls and Kolīs of the Dāngs from passing above the Western Ghāts, of rendering military service when required, and of keeping open the roads that ran through their territory. Under Marāthā rule, on the *deshmukh* refusing to pay any revenue, his country, along with the Dāngs, was reckoned as rebel land. But as Surgāna lay on one of the high roads between the Deccan and Surat, great efforts were made to conciliate the chief. The Surgāna *deshmukh* continued independent until 1818, when the British Government, in retaliation for an attack made on a British party, sent an expedition against the chief, who was seized and hanged, his cousin being recognized as the head of the State. This led to disputes about the succession, which were not settled till 1842. The chiefship descends in the line of one brother, while the descendants of another brother have an equal share in the revenues, independent of all control. The eldest son is not necessarily chosen to succeed. The chief

manages the State in person and resides at Surgāna (population, 959), 52 miles from Nāsik city. The State contains 61 villages, of which 15 are alienated. The population was 12,398 in 1891 and 11,532 in 1901, representing a density of 32 persons per square mile. The Hindus (11,222) are chiefly Kolīs (4,000) and Kunbīs (6,000). Their language is a dialect of Marāthī.

The soil chiefly consists of a loose rich black loam, which, though generally of little depth, is very fertile. The richest tracts are at the bottom of the valleys. The staple of food is *nāgli*, an early crop raised on the slopes of the hills by hand labour; *kodra*, rice, and *sāva* are also grown. About 20,000 acres are under cultivation. There are no special forest reserves. The roads passable for beasts of burden are from Hātgarh in Nāsik District to Bulsār in Surat; there is also a cart track from Surgāna to Bānsda. The only traffic is in timber. The *deshmukh* rules the State with the help of his *dīwān*, subject to the orders and instructions of the Collector of Nāsik as Political Agent. Civil disputes and petty offences are settled by the *deshmukh* with the *dīwān*. Criminal charges are tried without any regular procedure or fixed rules. Serious cases are referred to the Political Agent.

The revenue in 1903-4 exceeded Rs. 19,000, the average being Rs. 28,000, chiefly derived from excise (Rs. 8,000). The land revenue of the State (Rs. 4,000) is raised by a tax on ploughs, according to the system known as *autbandi*. Survey operations were commenced in 1895-6, but were suspended in the famine years and are still in abeyance. The forest revenue is Rs. 3,000. The police number 13. The *deshmukh* pays no tribute. Since 1881 the State has allotted about Rs. 7,500 to public works. The expenditure on education is limited to the maintenance of one school with 22 pupils in 1903-4. Surgāna contains no dispensary, but the *deshmukh* himself keeps a few medicines for free distribution.

Surgujā.—Feudatory State in the Central Provinces, lying between 22° 38′ and 24° 6′ N. and 82° 31′ and 84° 5′ E., with an area of 6,089[1] square miles. Till 1905 it was included in the Chotā Nāgpur States of Bengal. It is bounded on the north by the Mirzāpur District of the United Provinces and the State of Rewah; on the east by the Palāmau and Rānchī Districts of Bengal; on the south by the Jashpur and Udaipur States and the District of Bilāspur; and on the west by Koreā State.

Surgujā may be described in very general terms as a secluded basin, walled in on the north, east, and south by massive hill barriers, and protected from approach on the west by the forest-clad tract of Koreā.

[1] This figure, which differs slightly from the area shown in the *Census Report* of 1901, was supplied by the Surveyor-General.

Its most important physical features are the MAINPĀT, a magnificent table-land forming the southern barrier of the State, and the JAMĪRĀPĀT, a long winding ridge which is part of its eastern boundary. From the Jamīrāpāt, isolated hill ranges and the peculiar formations locally known as *pāts* rise to an elevation of 3,500 and 4,000 feet, forming on the north the boundary of Palāmau and blending on the south with the hill system of northern Jashpur. In the valley of the Kanhar river there is an abrupt descent of 900 feet from the table-land of the east to the fairly level country of central Surgujā, which here divides into two broad stretches of fertile and well-tilled land. One of these runs south towards Udaipur, and separates the Mainpāt from the wild highlands of Khuriā in Jashpur; the other trends to the west and, opening out as it goes, forms the main area of cultivated land in the State. The principal peaks are MAILĀN (4,024 feet), Jām (3,827 feet), and Partagharsa (3,804 feet). The chief rivers are the Kanhar, Rehar, and Māhān, which flow northwards towards the Son; and the Sānkh, which takes a southerly course to join the Brāhmanī. The watershed in which all these rivers rise crosses the State of Surgujā from east to west, and extends through the States of Koreā and Chāng Bhakār farther into the Central Provinces. None of the rivers is navigable, and the only boats used are the small canoes kept at some of the fords of the Rehar and Kanhar. The table-land and hill ranges in the east of the State are composed of metamorphic rocks, which here form a barrier between Surgujā and Chotā Nāgpur proper. In central Surgujā this metamorphic formation gives place to the low-lying carboniferous area of the Bisrāmpur coal-field; and this again is succeeded farther west by coarse sandstone, overlying the metamorphic rocks which crop up here and there. The chief tree is the *sāl* (*Shorea robusta*), which abounds everywhere. Tigers, leopards, bears, wild buffaloes, bison, and many kinds of deer are found.

The early history of Surgujā is obscure; but, according to a local tradition in Palāmau, the present ruling family is said to be descended from a Raksel Rājā of Palāmau. In 1758 a Marāthā army in progress to the Ganges overran the State, and compelled its chief to acknowledge himself a tributary of the Bhonsla Rājā. At the end of the eighteenth century, in consequence of the chief having aided a rebellion in Palāmau against the British, an expedition entered Surgujā; and, though order was temporarily restored, disputes again broke out between the chief and his relations, necessitating British interference. Until 1818 the State continued to be the scene of constant lawlessness; but in that year it was ceded to the British Government under the provisional agreement concluded with Mudhojī Bhonsla of Berār, and order was soon established. In 1826 the chief was invested with the title of Mahārājā. The present chief, who attained his majority in 1882,

received the title of Mahārājā Bahādur in 1895 as a personal distinction. The State pays Rs. 2,500 annually to Government as tribute, but this amount is subject to revision. The chief archaeological remains are the stone gateways, rock caves, and tunnel on RĀMGARH HILL, and the deserted fortress at JŪBA.

The recorded population increased from 182,831 in 1872 to 270,311 in 1881, to 324,552 in 1891, and to 351,011 in 1901; but the earlier enumerations were very defective. The people live in 1,372 villages, and the density is 58 persons per square mile. Hindus number 204,228; Animists, 142,783; and Muhammadans, 3,999. The majority of the inhabitants are Dravidian aborigines, the most numerous castes being Gonds (83,000), Goālās and Pāns (30,000 each), Kaurs and Oraons (29,000 each), Rajwārs (18,000), Korwās (16,000), Kharwārs (14,000), and Bhumijs (10,000), while among other aboriginal tribes Bhuiyās, Cheros, Ghāsis, Mundās, Nagesias, and Santāls are also represented.

Practically, the entire population is dependent on agriculture. The soils and systems of tillage are similar to those in Rānchī and Palāmau Districts, but many of the aboriginal tribes on the hills and plateaux practise 'shifting' cultivation. The principal crops grown are rice and other cereals, including wheat, barley, oats, maize, *maruā*, *gondli*, and *kodon*; also gram and other pulses, oilseeds, cotton, *san*-hemp, and flax. Cultivation is extending, but large tracts are still covered with unreclaimed jungle. The State contains extensive grazing grounds, to which large herds of cattle from Mirzāpur and Palāmau are sent every year.

The forests are of the same general character as those of Palāmau; they consist chiefly of *sāl*, but, owing to distance from the railway, they are at present of very little value. The principal jungle products other than timber are lac, *tasar* silk, and catechu. It has been estimated that the coal-measures of the Bisrāmpur field occupy an area of about 400 square miles, but no systematic prospecting has been done. Traces of lead are found.

There are fair roads from Bisrāmpur to the border of the Udaipur State and to Lerua, and a road from Dora to Partābpur. Altogether 410 miles of roads are maintained by the State, but these are chiefly fair-weather tracks. An extensive trade in jungle products, oilseeds, and *ghī* is carried on by means of pack-bullocks.

The relations of the chief with the British Government are regulated by a *sanad* granted in 1899, and reissued in 1905 with a few verbal changes due to the transfer of the State to the Central Provinces. Under this *sanad* the chief was formally recognized and permitted to administer his territory subject to prescribed conditions, and the tribute was fixed for a further period of twenty years, at the end of

which it is liable to revision. The chief is under the general control of the Commissioner of Chhattīsgarh as regards all important matters of administration, including the settlement and collection of land revenue, the imposition of taxes, the administration of justice, arrangements connected with excise, salt, and opium, and disputes in which other States are concerned; and he cannot levy import and export duties or transit dues, unless they are specially authorized by the Chief Commissioner. He is permitted to levy rents and certain other customary dues from his subjects, and is empowered to pass sentences of imprisonment up to five years and of fine to the extent of Rs. 200; but sentences of imprisonment for more than two years and of fine exceeding Rs. 50 require the confirmation of the Commissioner. Heinous offences calling for heavier punishment are dealt with by the Political Agent, Chhattīsgarh Feudatories, who exercises the powers of a District Magistrate and Assistant Sessions Judge; the Commissioner occupies the position of a Sessions Court in respect of such cases, while the functions of a High Court are performed by the Chief Commissioner.

The revenue of the State in 1904-5 was Rs. 1,27,000, of which Rs. 72,000 was derived from land and Rs. 23,000 from excise. The expenditure in the same year was Rs. 1,26,500, including Rs. 34,000 expended on administration, Rs. 12,000 on domestic charges, and Rs. 8,000 on public works. The land revenue demand is Rs. 80,000; and the State is divided for revenue purposes into 22 *tappās* or *parganas*, of which 6 are maintenance grants held by the junior branches of the chief's family, 4 belong to *jāgīrdārs* or *ilākadārs*, and the remaining 12 are in the immediate control of the Mahārājā himself. The collection of revenue in the latter is made through *tahsīldārs*, while the rent for the *ilākadāri* and maintenance tenures is paid direct into the State treasury by the holders. The *ilākadārs* hold their lands in perpetuity and pay rent to the Mahārājā; and the *jāgīrdārs* also hold in perpetuity on payment of a quit-rent with certain feudal conditions, which for the most part have fallen into disuse. Both these tenures are resumable by the Mahārājā, on the failure of direct male heirs to the grantee. The State contains 18 *thānas*, and the police force consists (1904-5) of 25 officers and 134 men, maintained at a cost of Rs. 10,000. In addition, there is a body of rural police, called *goraits*, who are remunerated by grants of land and are also paid in kind. The State jail is at Bisrāmpur, and prisoners sentenced to terms of imprisonment not exceeding two years are detained there. The only schools in the State are 11 *pāthsālas*; and in 1901 only 900 persons could read and write. There is a charitable dispensary at Bisrāmpur, at which 2,150 out-patients were treated during 1904-5; a fine new building, which will be used for a dispensary and hospital, has recently been con-

structed. Vaccination is carried on by licensed vaccinators, and 14,400 persons were successfully vaccinated in 1904-5.

[Sir W. W. Hunter, *Statistical Account of Bengal* (1877), vol. xvii; and *Memoirs, Geological Survey of India*, vol. vi.]

Sūri Subdivision.—Southern subdivision of Bīrbhūm District, Bengal, lying between 23° 33′ and 24° 7′ N. and 87° 10′ and 87° 58′ E., with an area of 1,107 square miles. The eastern part of the subdivision presents the appearance of the ordinary alluvial plains of Lower Bengal; but towards the west the ground rises, and this portion consists of a rolling country with undulating uplands of laterite. The population in 1901 was 535,928, compared with 470,229 in 1891, the density being 484 persons per square mile. It contains one town, SŪRI (population, 8,692), the head-quarters; and 1,981 villages.

Sūri Town.—Head-quarters of Bīrbhūm District, Bengal, situated in 23° 54′ N. and 87° 32′ E., on the summit of a gravel ridge, 3 miles south of the Mor river. Population (1901), 8,692. Sūri was constituted a municipality in 1876. The income during the decade ending 1901-2 averaged Rs. 11,000, and the expenditure Rs. 10,000. In 1903-4 the income was Rs. 16,000, of which Rs. 5,000 was derived from a tax on persons (or property tax), and Rs. 3,000 from a conservancy rate; and the expenditure was Rs. 14,000. The town contains the usual public offices; the District jail has accommodation for 290 prisoners, the principal industries being oil-pressing, aloe-pounding, *newār* and carpet-making. A large cattle and produce show is held annually in January or February, at which prizes are given. Palanquins and furniture are made in the town, and cotton- and silk-weaving are carried on in the villages of Alunda and Karidha in the neighbourhood.

Suriapet.—*Tāluk* in Nalgonda District, Hyderābād State, with an area of 687 square miles. Including *jāgīrs*, its population in 1901 was 175,436, compared with 148,103 in 1891. The *tāluk* contains 192 villages, of which 10 are *jāgīr*; and Suriapet (population, 4,418) is the head-quarters. The land revenue in 1901 was 3·1 lakhs. Rice is extensively raised by irrigation from tanks, wells, and channels. In 1905, 15 villages from Suriapet were transferred to the new *tāluk* of Pochamcherla.

Suribān.—Village in the State of Rāmdurg, Bombay, situated in 15° 53′ N. and 75° 27′ E. It is noted as the place where in 1858 Mr. Manson, Political Agent of the Southern Marāthā Country, was murdered by the Nargund chief. Mr. Manson had incurred much ill-will from his connexion with the Inām Commission, but his frank and kindly disposition gave him considerable influence with the Bombay Carnatic chiefs. Hearing that the Nargund chief had placed guns on his fort, Mr. Manson moved with great speed to the threatened quarter, leaving his escort behind and taking with him only a dozen troopers

of the Southern Marāthā Horse. He came to Rāmdurg, where a half-brother of the Nargund chief received him cordially, but advised him not to go to Nargund or through Nargund territory, as the country all round was unsafe. In spite of this warning, Mr. Manson pressed forward that night to Suribān. Meanwhile the Nargund chief, who was greatly incensed at a letter sent by Mr. Manson from Rāmdurg, and who feared that the Political Agent had full knowledge of his treason, went towards Rāmdurg with seven or eight hundred horse and foot. On the way, hearing that Mr. Manson was at Suribān, he turned aside and came to the village about midnight. A band of armed men surrounded the village, came close to the spot where the party was asleep, killed the sentry, and rushed upon Mr. Manson, who was roused from sleep in his palanquin, fired his revolver at his assailants and wounded one, but was immediately overpowered in the palanquin; his head was cut off and taken to Nargund, where it was exposed on the town gate, and his body was thrown into the fire that had been kindled by his party. Ten of Mr. Manson's party were killed and eleven wounded. On May 30 Lieutenant La Touche came from Kalādgi to Suribān with a party of the Southern Marāthā Horse and recovered Mr. Manson's body.

The villages of Suribān, Manihel, and Shivapeth have been constituted a municipality, with an income in 1903-4 of Rs. 2,300. The population of these three villages in 1901 was 5,260. Suribān contains a dispensary.

Surmā River.—River of Assam, giving its name to the southern of the two valleys which originally constituted that Province. It rises on the southern slopes of the great mountain range which forms the northern boundary of Manipur. From there it flows for about 180 miles in a south-westerly direction till it reaches British territory at Tipaimukh. The upper part of its course, where it is known as the Barāk, lies through narrow valleys shut in on either side by hills that rise steeply from the river; and for a short distance it forms the boundary between the Nāgā Hills and Manipur. At Tipaimukh it turns sharply to the north, and for some distance divides Cāchār from Manipur in a line almost parallel to that taken by the river in its downward sweep. Near Lakhipur it turns west and enters Cāchār District, through which it flows with an extremely tortuous course till Sylhet is reached at Badarpur. A few miles west of that place the river divides into two branches. One stream, known as the Surmā, flows near the foot of the Khāsi and Jaintiā Hills past Sylhet, Chhātak, and Sunāmganj, and then turns again towards the south. The second branch is known at first as the Kusiyārā, but after its confluence with the Manu it again divides into two branches. The northern arm, called the Bibiyānā and afterwards the Kālni, rejoins the Surmā on the borders of the District near

Ajmiriganj. The lower branch of the Barāk, resuming the name by which the river is known in Manipur and Cāchār, passes Nabiganj and Habiganj, and falls into the Surmā a little west of the latter place. The total length of the Surmā, measured along the northern arm of the river from its source to its confluence with the old stream of the Brahmaputra near Bhairab Bāzār, is about 560 miles. The Barāk receives numerous tributaries, the most important being on the north the Jiri, Jātingā, Bogāpāni, and Jādukāta, and on the south the Sonai, Dhaleswari, Singlā, Langai, Manu, and Khowai. In the upper part of its course it flows in a very deep channel, and, though rain in the hills often makes the river rise many feet in a few hours, it seldom overflows its banks. Lower down, where the bed of the river is not so deep, its waters sometimes spread over the surrounding country, and the floods of both the Surmā and the Kusiyārā are said to do some damage. In a low-lying District like Sylhet, which receives an enormous rainfall, it is practically impossible to confine rivers within embankments; and the only works of this nature constructed on the Surmā are a small embankment along the north bank of the Kusiyārā from Fenchuganj to Mānikkonā, and a raised road from Noākhāli to Sylhet along the south bank of the Surmā. Prior to the construction of the Assam-Bengal Railway, the Surmā, with its numerous branches, was practically the only means of communication between Cāchār and Sylhet and the outside world; and it still takes a large share in the carrying trade of the country. During the rainy season, large steamers proceed up the Kusiyārā to Silchar, while steamers of lighter draught ply between Silchar and Lakhipur, and from Markhali near the western border of Sylhet past Sunāmganj and Chhātak to Sylhet town. In the cold season the large steamers go to Chhātak, and only small steamers can pass up the Kusiyārā to Silchar, as at that time of the year there is very little water in the river. The surface of all the numerous channels of this river is dotted with native boats of various shapes and sizes at all seasons of the year, and in that part of its course where it flows through or in the neighbourhood of the hills the scenery is extremely picturesque. Its importance as a trade route has caused many local marts to spring up on its banks. The most important of these are—on the river prior to its bifurcation, where it is known as the Barāk—Lakhipur, Silchar, Siyāltek, and Badarpur, where it is spanned by a magnificent railway bridge. On the Surmā, or northern branch, are Kānairghāt, Sylhet, Chhātak, Dwārā Bāzār, and Sunāmganj; while on the Kusiyārā are Karīmganj, Fenchuganj, Bālāganj, Manumukh, and Ajmiriganj. These are, however, only the more important centres of local trade. Throughout the whole of its course in the plains the banks of the various branches of the river are lined with villages, and there are numerous markets of less importance.

Surmā Valley and Hill Districts Division.—Division in the Province of Eastern Bengal and Assam, consisting of the upper valley of the Surmā or Barāk, together with the section of the Assam Range which bounds it on the north, and the Lushai Hills, a tract of mountainous country lying south of Cāchār. It lies between 22° 19′ and 26° 48′ N. and 90° 45′ and 94° 50′ E., and covers an area of 25,481 square miles. The head-quarters of the Commission are at SILCHAR TOWN. The population of the Division at the last four enumerations was: (1872) 2,165,943, (1881) 2,546,241, (1891) 2,879,251, and (1901) 3,084,527. The density is only 121 persons per square mile, but the lowness of this figure is due to the inclusion of the hill tracts; and the plains alone support 357 persons per square mile. In 1901 Hindus formed 44 per cent. of the population, Muhammadans 43 per cent., and Animistic tribes 12 per cent. Other religions included Buddhists (554) and Christians (19,751), of whom 18,807 were natives. The division contains five Districts, as shown below:—

	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Sylhet	5,388	2,241,848	10,90
Cāchār	3,769	455,593	5,14
Lushai Hills	7,227	82,434	30*
Nāgā Hills	3,070	102,402	58*
Khāsi and Jaintiā Hills	6,027	202,250	37*
Total	25,481	3,084,527	17,29

* Including house tax.

Sylhet and the Cāchār plains are a fertile and highly cultivated valley. The Hill Districts consist for the most part of sharply serrated ridges covered with forest or bamboo jungle, though in the Khāsi Hills there is a fine grassy plateau between 5,000 and 6,000 feet above the level of the sea. The Division contains eight towns, the largest being SYLHET (population, 13,893), SILCHAR (9,256), and SHILLONG (8,384). Trade in Sylhet is to a great extent carried by water; and some of the river-side marts, such as BĀLĀGANJ, CHHĀTAK, HABIGANJ, AJMIRIGANJ, Sunāmganj, and KARĪMGANJ, are places of considerable importance. BĀNIYĀCHUNG was the most populous village in the old Province of Assam; and CHERRAPUNJI, on the southern face of the Khāsi Hills, has the reputation of possessing the heaviest recorded rainfall in the world.

Sursati.—River in the Punjab. *See* SARASWATĪ.

Surul.—Village in the head-quarters subdivision of Bīrbhūm District, Bengal, situated in 23° 40′ N. and 87° 40′ E., in the south of the District, about 5 miles north of the Ajay river. Population (1901),

1,558. The village is noteworthy as the site of an old commercial residency, formerly the centre of the Company's trade in Bīrbhūm. During the latter years of the eighteenth century, from 4½ to 6½ lakhs of rupees was annually expended on the mercantile investment at Surul. The first Commercial Resident, Mr. Cheap, who exercised magisterial powers, has left behind him the name of 'Cheap the Magnificent.' He introduced indigo cultivation into the District, improved the manufacture of sugar by means of apparatus brought from Europe, and established a private firm, which flourished until within the last few years. When the Company gave up their commercial dealings, the residency at Surul was abandoned. The ruins crown the top of a small hill. The trade in indigo and sugar is now extinct.

Susunia.—Hill in the head-quarters subdivision of Bānkurā District, Bengal, situated in 22° 43′ N. and 86° 49′ E., and rising to 1,442 feet above sea-level. It runs due east and west for 2 miles, and is covered with heavy tree jungle except on its south face, where it was formerly quarried for building stone.

Suthālia.—*Thakurāt* in the BHOPAL AGENCY, Central India.

Sutlej River (*Satlaj*; the *Zaradros* of Ptolemy and Arrian; the *Sutudri* or *Satadru* of the Vedas, 'flowing in a thousand channels').—One of the 'five rivers' of the Punjab from which the Province derives its name. Rising near the more westerly of the Mānasarowar Lakes in Tibet in 30° 20′ N. and 81° 25′ E., at a height of 15,200 feet, the Sutlej flows in a north-westerly direction along the southern slopes of the Kailās mountains to the Chinese frontier outpost at Shipki. Here its elevation is 10,000 feet above the sea. Thence turning south-west-by-south it enters the Kanāwār valley in Bashahr State, receiving the waters of the Li or river of Spiti near Dāhlang. Its course in Kanāwār is 80 miles. After leaving that valley it flows west-south-west through deep gorges in the hills, separating the Sarāj *tahsīl* of Kulū and Mandī State on the north from the Simla Hill States on the south. In this reach lie Rāmpur, the capital of Bashahr, and Bilāspur town. Then winding through Bilāspur State the Sutlej enters the Jaswān Dūn in Hoshiārpur, and turning suddenly south-east, past the town of Anandpur-Mākhowāl in that District, pierces the Siwāliks at Rūpar, after a course of 160 miles from the western extremity of Kanāwār. In the hills, the Sutlej is crossed by bridges at Wangtu, Rāmpur, Lohri, and Seoni. At Rūpar it takes a sudden bend to the west, and debouching upon the plains divides the Jullundur Doāb from the Sirhind plateau. At the south-west corner of Kapūrthala State (31° 11′ N. and 75° 4′ E.) the sluggish waters of the Bein and the broad stream of the Beās flow into the Sutlej. From this point the united stream preserves an almost uniform south-westerly course, dividing the Bāri Doāb to the north from the sandy plains of Ferozepore and Bahāwalpur to the south,

until after receiving the Chenāb at Madwāla it joins the Indus at Mithankot in Muzaffargarh District. The total length of the river is 900 miles. In the plains it is fringed by a fertile lowland valley, confined on either side by high banks leading to the naturally barren table-lands that form the watersheds of the Rāvi to the north and the Jumna to the south. The lower valley of the Sutlej is less fertile, and closely resembles the deserts of Rājputāna. As soon as it enters the plains the river is robbed of half its waters by the SIRHIND CANAL, which takes off at Rūpar from the southern bank of the river, and irrigates large tracts in Ludhiāna and Ferozepore Districts and the adjacent Native States. Soon after the Beās joins the Sutlej, the UPPER SUTLEJ system of inundation canals takes off from its northern bank to irrigate parts of Lahore and Montgomery Districts. Finally, the LOWER SUTLEJ CANALS draw off most of the remaining water to irrigate the rainless tracts of south-west Multān. The river is open to small craft all the year round, but there is little traffic above Ferozepore. It is bridged by the North-Western Railway at Phillaur, Kasūr, and Adamwāhan in Bahāwalpur.

After it leaves the hills the river is never called Sutlej by the people, and it has changed its course more than once in historical times. The history of those changes can be traced with considerable probability and detail. In the time of Arrian, the Sutlej found an independent outlet into the Rann of Cutch. In the year A.D. 1000 it was a tributary of the Hakra, and flowed in the Eastern Nāra. Thence the former bed can be traced back through Bahāwalpur and Bīkaner into the Sirsa *tahsīl* of Hissār, until it is lost near Tohāna. From Tohāna to Rūpar this old bed cannot be traced; but it is known that the Sutlej took a southerly course at Rūpar, instead of turning west, as now, to join the Beās. Thus the Sutlej or the Hakra—for both streams flowed in the same bed—is probably the lost river of the Indian desert, whose waters made the sands of Bīkaner and Sind a smiling garden. By 1245 the Sutlej had taken a more northerly course, the Hakra had dried up, and a great migration took place of the people of the desert—as it thus became—to the Indus valley. The course then taken by the Sutlej was apparently a continuation of the present course of the Ghaggar. About 1593 the Sutlej left the Ghaggar and went north once more. The Beās came south to meet it, and the two flowed in the same channel under various names—Macchuwah, Hariāni, Dand, Nūrni, Nīli, and Gharah. Then the Sutlej once more returned to its old course and rejoined the Ghaggar. It was only in 1796 that the Sutlej again left the Ghaggar and finally joined the Beās.

Sutlej Canals, Upper.—An Imperial system of four inundation canals in the Punjab, known as the Katora, Khānwah, Upper Sohāg, and Lower Sohāg (or Lower Sohāg and Pāra) Canals. They take off

from the right bank of the Sutlej river, and irrigate the low-lying land bounded on the north by the old dry bed of the Beās, which separates it from the tracts commanded by the Bāri Doāb Canal. The tract commanded by the Katora Canal lies in Lahore District, and the remainder in Montgomery.

The canals existing at the end of 1903–4 aggregated 325 miles in length with 394 miles of distributaries, and carried an aggregate supply of 4,935 cubic feet per second. During the five years ending 1903–4 they irrigated an average annual area of 409 square miles and yielded an average gross revenue of 3·5 lakhs or, inclusive of the land revenue due to irrigation (which is credited to the canals in the accounts), 5·4 lakhs per annum. The average annual working expenses during the same period were 3·6 lakhs. There was, therefore, an annual profit of 1·8 lakhs. No capital expenditure was recorded against the canals till 1854–5; up to the end of 1903–4 it has amounted to 17 lakhs.

The Katora Canal has a bed-width of 55 feet, and an authorized discharge of 685 cubic feet per second. It was made in 1870–1, and follows the bed of a nullah for 21 miles, when it separates into three channels called the Pakhoki, Atāri, and Chuniān distributaries. The Khānwah has a bed-width of 65 feet, and an authorized full supply of 1,290 feet per second. The date of first opening is not known; it is, however, recorded that the canal was improved by Mirza Khān, a minister of the emperor Akbar, but it was neglected by his successors, and silted up. In the time of Ranjīt Singh, Dīwān Rādha Rām repaired the head and cleared the channel, and the canal flowed from 1807 to 1823. It was again neglected till 1841, when Fakīr Chirāgh-ud-dīn, under the orders of Mahārājā Sher Singh, had the canal repaired, and it was in flow when taken over by the Irrigation department on the annexation of the Punjab. The Upper Sohāg Canal has a bed-width of 60 feet, and an authorized discharge of 1,540 cubic feet per second. It appears to have been made in 1827, and worked till 1840, when it was neglected; and nothing further was done to it till 1855, when, the canal having been taken over by the Irrigation department, the channel was again put into working order. The Lower Sohāg Canal has a bed-width of 90 feet, and an authorized discharge of 1,420 cubic feet per second. It may be said to date from 1816, when the first attempt to irrigate was made by means of a dam across the Sohāg nullah, which caused it to overflow its banks. In 1831 another dam was made, and the water was led on to the lands of Jawand Singh at Dīpālpur, who is said to have obtained a large return from the water. After some fighting the dam was demolished in 1835; and from that date the canal existed only in name, irrigation being effected on only 3,000 acres by lifts by means of a narrow cut 20 feet wide. In 1885–6 the present regular canal was opened. The canal

follows generally the Sohāg nullah for 33 miles, till it gives off the Pāra nullah. The canal continues in the form of two branches, one along the Pāra nullah and the other along the Sohāg nullah. The channel, however, was not formed in the bed, but consists of an artificial cut, which is crossed and recrossed by the tortuous dry nullahs. The canal was constructed mainly for the purpose of bringing under cultivation 142 square miles of Government waste. This area was colonized by allotting parcels of land to chosen peasants from adjacent over-populated Districts. For the purpose of allotment the land was divided into squares, 27·7 acres in area, and each allotment consisted of 4 squares or 111 acres. The canals being dry in the cold season, the colonists were required to construct wells, at least one well per holding being necessary.

Sutlej Inundation Canals, Lower.—An Imperial system of inundation canals in the Punjab, taking off from the right bank of the Sutlej and irrigating part of Multān District. They were for the most part constructed in the middle of the eighteenth century by the Daudputras, a powerful tribe who were in possession of this part of the country from the downfall of the Mughals to the rise of Ranjīt Singh; but one of the largest, the Dīwānwāh, was excavated in 1831 by Dīwān Sāwan Mal, who also enlarged and improved several others. Excluding the Hājiwāh canal, whose history is separate from that of the rest, there were 19 of these canals in 1850; these, however, have been gradually amalgamated, and in 1903 there were only three—the Mailsi, Muhammadwāh-Sardārwāh, and Bahāwalwāh-Lodhrān canals—of which the last two will probably be amalgamated. The gross cultivable area commanded by these canals is 1,414 square miles, of which 424 are at present irrigable. The canals generally flow from April to October; but since the SIRHIND CANAL came into full operation the supply of water at the commencement and end of the flood season has been considerably reduced, and the actual area irrigated in the five years ending 1903–4 was only 263 square miles. The normal autumn crop is sown and matured with canal water alone; but for the spring harvest only the preliminary waterings required for ploughing and sowing are given from the canal, and further irrigation is supplied from wells. The maximum discharge is 5,000 cubic feet per second, and the total length of main canals is 394 miles and of distributaries 328 miles. Properly designed channels are of only recent construction, and have still to be provided on the Mailsi canal. Until recently canal clearance was effected by the labour of the cultivators; this system was, however, finally abolished in 1903 and rates are now paid. No capital account is kept for these canals. The gross revenue for the three years ending 1903–4 averaged 3·8 lakhs, and the net revenue Rs. 83,000.

The Hājiwāh canal is included in the Lower Sutlej system. It was a private canal constructed in the time of Ranjīt Singh, and its administration was taken over by Government in 1888 in consequence of the mismanagement of the owners. This action was authorized by the terms of a deed executed in 1886, under which Government had given the owners a grant of 60,000 acres of land served by the canal, and it was upheld by the Privy Council in 1901. The canal has a bed-width of 30 feet, an average supply during the flood season of 500 cubic feet per second, and a length of 39 miles. The average area irrigated is only 53 square miles, as the alignment is defective.

Sutnā.—Town in Rewah State, Central India. *See* SATNĀ.

Suvāli (the 'Swally' of the old records).—Seaport of Surat, in the Olpād *tāluka* of Surat District, Bombay, situated in 21° 10′ N. and 72° 39′ E., about 12 miles west of Surat city, outside the mouth of the Tāpti, with a good roadstead and deep water. Population (1901), 1,692. The channel, about 1½ miles in breadth and 7 miles in length, lies between the shore and a long strip of land dry at low water; 'Suvāli hole' is a cove which cuts into the land about the middle of this channel. With the arrival of large European ships, which had often to remain in the Tāpti for several months, Suvāli became the seaport of Surat. In 1626 it was already a place of importance. In the fair season (September to March) the Vānīs pitched their booths and tents and huts of straw in great numbers, resembling a country fair or market. Here they sold calicoes, China satin, porcelain, mother-o'-pearl and ebony cabinets, agates, turquoises, carnelians, and also rice, sugar, plantains, and native liquor. For some years all ships visiting the Tāpti were allowed to anchor at Suvāli, but so great were the facilities for smuggling that, before many years had passed (1666), the privilege was limited to English, French, and Dutch. About half a mile from the sea 'the factors of each of these nations built a convenient lodging of timber, with a flagstaff in front, flying the colours of its nation.' On the sea-shore was a European burial-ground, where, according to one account, was laid Tom Coryat, the eccentric traveller and author, who, says Terry, 'overtook death by drinking too freely of sack' in December, 1618, and was buried under a little monument like one of those usually made in our churchyards. The more authentic version affirms that Coryat was buried near Surat. Towards the end of the eighteenth century Suvāli was no longer a place of anchorage, its place being taken by the roads, a league south of the river mouth.

Suvanna Bhūmi.—Legendary area in Lower Burma. *See* THATON TOWN.

Suvarnadrug.—Island fortress in the Dāpoli *tāluka* of Ratnāgiri District, Bombay. *See* HARNAI.

Suvarnāvati.—River in Mysore. *See* HONNŪ-HOLE.

Swābi Tahsīl.—Easternmost *tahsīl* of Peshāwar District, North-West Frontier Province, lying between 33° 54′ and 34° 22′ N. and 72° 12′ and 72° 45′ E., with an area of 467 square miles. It forms, with the Mardān *tahsīl*, the Yūsufzai subdivision. It consists of a level plain intersected by two considerable streams, the Naranji Khwar and Badri, and many smaller ravines. The population in 1901 was 144,513, compared with 130,687 in 1891. It contains 94 villages, including Swābi, the head-quarters. The land revenue and cesses in 1903-4 amounted to Rs. 3,00,000. The principal tract in the *tahsīl* is the Razzar, occupying its north-eastern half, which is so called after the branch of the Mandanr Pathāns which holds it. The central portion is held by the Sadozai and the eastern extremity by the Utmanzai, both branches of the Mandanr. The *tahsīl* was formerly known as Utmān Bulak.

Swally.—Former seaport of Surat, Bombay. *See* SUVĀLI.

Swāt State.—One of the tracts comprised in the Dīr, Swāt, and Chitrāl Agency, North-West Frontier Province, lying between 34° 40′ and 35° N. and 72° and 74° 6′ E. It forms the valley of the Swāt river, which, rising in the lofty ranges bordering on Chitrāl, flows south-south-west from its source to Chakdarra, thence south-west to the Malakand, thence north-west to its junction with the Panjkora, thence south-west again till it meets the Ambahār, thence south-east to Abāzai in Peshāwar District. Below its junction with the Panjkora the valley is not, politically speaking, Swāt but Utmān Khel. Swāt is divided into two distinct tracts: one, the Swāt Kohistān, or mountain country on the upper reaches of the Swāt river and its affluents as far south as Ain; and the other, Swāt proper, which is further subdivided into Bar ('Upper') and Kuz ('Lower') Swāt, the latter extending from Landakai to Kalangai, a few miles above the junction of the Swāt and Panjkora rivers. The area of Swāt, including Swāt Kohistān, is about the same as that of Dīr; but the river valley does not exceed 130 miles in length, with an average breadth of about 12 miles. The valley contains a series of rich alluvial tracts, extensively cultivated and extending for 70 miles along the river banks, while in the Kohistān are vast forests of *deodār*. Starting from an elevation of 2,000 feet, at the junction of the Swāt and Panjkora rivers, the valley rises rapidly, and the peaks to the north range from 15,000 to 22,000 feet above the sea. The climate of the lower valleys is malarious and unhealthy, especially in autumn.

The histories of Dīr, Swāt, Bājaur, and Utmān Khel are so inextricably intermingled that it has been found impossible to treat them separately.

The first historical mention of these countries is made by Arrian, who records that in 326 B.C. Alexander led his army through Kunar,

Bājaur, Swāt, and Buner; but his successor, Seleucus, twenty years later made over these territories to Chandragupta. The inhabitants were in those days of Indian origin, Buddhism being the prevailing religion; and they remained thus almost undisturbed under their own kings until the fifteenth century. They were the ancestors of the non-Pathān tribes—e. g. Gūjars, Torwāls, Garhwīs, &c.—who are now confined to Bashkār of Dīr and the Swāt Kohistān.

The invasion of the Yūsufzai and other Pathān tribes of Khakhai descent, aided by the Utman Khel, then began; and by the sixteenth century the Yūsufzai were in possession of Buner, Lower Swāt, and the Panjkora valley; the Gigiānis and Tarkilanris had established themselves in Bājaur, and the Utmān Khel in the country still occupied by them. The advent of these Pathān invaders introduced the Muhammadan religion throughout these countries. At this time the emperor Bābar, by a diplomatic marriage with the daughter of Malik Shāh Mansūr, the head of the Yūsufzai clans, and by force of arms, established his sovereignty throughout Bājaur (except Jandol), the Panjkora valley as far as its junction with the Bājaur, and Lower Swāt. Upper Swāt, which was still held by the aboriginal Swātis under Sultān Udais or Wais, tendered a voluntary submission, claiming protection from the invader, which Bābar gave. In Humāyūn's reign, however, the advance was continued, and the Yūsufzai overran the Sheringal portion of Dīr and Upper Swāt as far as Ain, beyond which they have scarcely advanced to this day. Humāyūn's yoke was rejected by them, and even Akbar in 1584 could exact no more than a nominal submission. Such degree of peace as obtains among independent Pathān tribes was enjoyed by the Yūsufzai and their neighbours, until a fruitful cause of dissension arose in Dīr in the person of a religious reformer named Bazīd, called by his adherents the Pīr-i-Roshan, whose chief opponent was Akhund Darweza Bāba, the historian of the Yūsufzai. The heresy of the Pīr and the constant depredations of the combatants on either side at length compelled interference. Zain Khān, Kokaltāsh, was deputed by the governor of Kābul to bring the tribes to reason, and after five years' fighting and fort-building he effected in 1595 a thorough conquest of the country. By 1658, however, in which year Aurangzeb ascended the throne, the lesson had been forgotten. The tribes refused to pay revenue, declared their independence, and maintained it till the time of Nādir Shāh, whose successors, Ahmad Shāh Durrāni and Tīmūr Shāh, kept their hold on the country. The grasp was not altogether lost by those who came after; and, when Azīm Khān attacked the Sikhs in 1823, the Yūsufzai sent a large contingent with his army. They were defeated, and Ranjīt Singh entered Peshāwar, but did not essay a farther advance into the northern hills.

In 1829 the colony of Hindustāni fanatics, which still exists in the

Amarzai country, was founded by Mīr Saiyid Ahmad Shāh of Bareilly. But the austerities enjoined by the Mīr were his undoing. A conspiracy was formed; his chief followers were murdered in a single night, and he himself was hunted down and killed at Bālākot in Hazāra in 1831. The primacy then passed to Abdul Ghafūr, the famous Akhund, who established himself in 1835 at Saidu in Upper Swāt, where he lived until his death in 1877, the most powerful man in the country.

On the establishment of British rule in the Peshāwar valley (1849), no attempt was made to penetrate into the hill country. But the raids of the tribesmen in British territory, and the asylum which they afforded to outlaws and desperadoes, could not be suffered to pass unnoticed; and punitive expeditions were sent in 1849 against the Utmān Khel, and in 1852 against both this tribe and the inhabitants of Sam Rānizai, the country between the District border and the Malakand Pass. Severe punishment was inflicted in the second expedition. The year of the Mutiny (1857) passed off without disturbance, a refuge in Swāt being actually denied to the mutineers of the 55th Native Infantry by the Akhund, who, however, adopted this course for reasons of local policy, not from love of the British Government. In 1863 took place the expedition against the Hindustāni fanatics resulting in what is known as the AMBELA campaign, in which the united forces of Swāt, Bājaur, Kunar, and Dīr were arrayed under the banner of the Akhund against the invading force. In 1866 another small expedition was sent to punish the Utmān Khel, after which there was peace on the border till, in 1878, force had again to be used. The Guides were sent against the people of Rānizai and the Utmān Khel, with complete success in the restoration of order. Early in 1877 the Akhund died; and his son, attempting to succeed to his position, was bitterly opposed by the Khān of Dīr. The whole country as far as Nawagai in Bājaur was embroiled; and in the confused fighting and tortuous diplomacy that followed Umrā Khān of Jandol, a scion of the royal house of Bājaur, took a prominent part. Allying himself first with the Miān Gul, the son of the Akhund, by 1882 he had conquered and taken from the Khān of Dīr nearly half his country. In 1882 the Miān Gul became jealous and fell out with Umrā Khān, making terms with the Khān of Dīr. Umrā Khān's position was rendered more difficult next year by the arrival in the Utmān Khel country of a religious leader, said to have been sent from Kābul to thwart him, and known as the Makrāni Mullā. His denunciations effected in 1887 a combination of the whole country-side, including Dīr, Nawagai, Swāt, Utmān Khel, Salarzai, and Māmund, against Umrā Khān. But the allies were defeated, quarrelled one with another, and dispersed; and by 1890, the Mullā having fled the country, Umrā Khān was master of the whole of Dīr territory, the

Khān (Muhammad Sharīf) being in exile in Swāt. Ever since 1884 Umrā Khān had been coquetting with the British authorities, in the hope of being furnished with rifles and ammunition. In 1892 he accepted, in return for a subsidy, the task of keeping postal communications open with Chitrāl, and thereafter began to intrigue, on the death of the great Mehtar Amān-ul-mulk, in the affairs of that country. The Asmār boundary commission in 1894 augmented the coolness between the Government and Umrā Khān, which came to open hostility in the next year (*see* CHITRĀL), and as a result of his defeat Umrā Khān fled in 1896 to Kābul. The Khān of Dīr at once returned to power and entered into agreements with the Government for keeping the Chitrāl road open, without toll, as also did the clans of Swāt, subsidies being granted to both. In the year after the Chitrāl expedition, the Political Agency of Dīr and Swāt was constituted, and posts were built at Chakdarra, in Lower Swāt, the Malakand, and Dargai in the Rānizai country. Chitrāl was shortly added as an apanage of the Agency, having hitherto been connected with Gilgit. The disturbance of the country caused by the events of 1895, the intrigues of Afghān officials, and the natural animosity of the religious classes after a period of apparent calm, during which the title of Nawāb was conferred on the Khān of Dīr, led to the rising of 1897, in which a determined effort was made by the tribesmen, mustered by the Mullā Mastān ('Mad Mullā') of Swāt, to storm the posts at Chakdarra and the Malakand. Their attacks were repulsed, though not without difficulty; and in the punitive operations which followed columns were sent to enforce the submission of the Māmunds in Bājaur, the Yūsufzai of Swāt, and the Bunerwāls. No action against Dīr was necessary, for the Nawāb had been able to restrain his people from overt hostility.

In 1901 a railway was opened from Naushahra to Dargai at the foot of the Malakand Pass. Tribal fighting has continued intermittently, but no event of importance took place in the Agency after 1897, until the death of the Nawāb of Dīr in 1904. His eldest son Aurangzeb (Bādshāh Khān) has been recognized as the successor, but the succession is disputed by Miān Gul Jān, his younger brother.

Swāt proper is now peopled by the Akazai branch of the Yūsufzai Pathāns (about 150,000 in number), and the Kohistān by Torwāls and Garhwīs (estimated at 20,000). The Yūsufzai comprise various clans. On the left bank of the river lie the Rānizai and Khān Khel in Lower Swāt, and the Sulizai and Bābuzai in Upper Swāt. On the right bank are the Shamizai, Sabujni, Nikbi Khel, and Shamozai in Upper Swāt, and in Lower Swāt the Adinzai, Abāzai, and Khadakzai clans. All the clans on the right bank, except the two last named, are collectively known as the Khwazozai; and all except the Rānizai on the left are collectively called the Baezai. The whole valley and the

Kohistān are well populated; but before 1897 the Swāti Pathāns had not the reputation of being a fighting race, and owing to the unhealthiness of the valley their physique is inferior to that of Pathāns generally. The language of the people is the pure Yūsufzai Pashtū, except in the Kohistān, where the Torwāls and Garhwīs speak dialects of their own, which is said to resemble very closely the dialect of Hindkī used by the Gūjars of Hazāra.

The people are by religion Muhammadans of the Sunni sect, those of the Kohistān, as recent converts, being peculiarly ignorant and fanatical. The shrine of the great Akhund of Swāt, at Saidu, is one of the most important in Northern India. Born of Gūjar parents, probably in Upper Swāt, Abdul Ghafūr began life as a herd-boy, but soon acquired the titles of Akhund and Buzurg by his sanctity, and for many years resided at Saidu, where he exercised an irresistible influence over the Yūsufzai and their neighbours. His grandsons have inherited some of his spiritual influence. The offerings at the Akhund shrine and subscriptions received from their followers afford them a considerable income. A still living religious leader is the Mullā Mastān, or 'Mad Mullā' (also called the *sartor* or 'bare,' literally 'black-headed,' *fakīr*), Sad-ullah Khān. By birth the son of a Bunerwāl *malik* and a great athlete in his youth, he spent some years at Ajmer and returned to Buner in 1895. His piety soon made him widely known in the Swāt and Indus Kohistān, and his religious fervour earned him his title of Mastān.

Swāt River (Sanskrit, *Suvastu*; Greek, *Souastos* or *Souastēnē*).—River of the North-West Frontier Province, formed by the junction at Kalān in the Swāt Kohistān of the Gabral and Ushu. The former rises on the east of the Badugai pass, and the latter comes down from the higher hills of Bashkār to the north. From Kalān the Swāt river flows almost due south for about 68 miles, but at Manglaur turns abruptly to the south-west and west for 24 miles until it is joined by the Panjkora. The united waters then sweep in a great curve southwestwards to Abāzai in Peshāwar District, where they emerge to the north of the Mohmand hills into the Peshāwar valley. Here the river spreads south-east in several streams over the plain, joining the Kābul river at Nisatta after a total course of about 400 miles. Fed by glaciers and snow, it has a considerable volume in the summer months, but shrinks after the middle of September, until in midwinter it is fordable almost everywhere. In Peshāwar District the SWĀT RIVER CANAL takes off from the river, and a scheme for tunnelling under the Malakand Pass and bringing its waters to the eastern part of Yūsufzai is under consideration.

Swāt River Canal.—A perennial irrigation work in Peshāwar District, North-West Frontier Province, taking off from the right

bank of the Swāt river at Abāzai, and irrigating about 155,000 acres. The place of a weir is taken by a natural reef stretching across the river below the head regulator. The regulator has seven openings of 6 feet each, and is protected at each end by fortified blockhouses, forming one of the chain of frontier posts garrisoned by the border military police. The main channel has a width of 31 feet and a depth when full of 7·35 feet; it can carry a supply of 865 cubic feet per second. In a total length of 22½ miles there are no less than 21 drainage works, which carry under or over the canal the water of the numerous mountain torrents that intersect its course. These are for the most part crossed by massive stone aqueducts, and the canal banks for some distance above and below these crossings are of a great height. About 186 miles of distributary channels have been aligned on the watersheds between the torrents, the most important being the trans-Kalpāni distributary, which has a discharge of 94 cubic feet per second and a length of nearly 14½ miles, and in which there are fourteen drainage works of importance.

The tract commanded by the canal is that portion of the dry, sparsely populated Yūsufzai plain which is bounded on the north by the canal itself, on the west and south by the Swāt and Kābul rivers, and on the east by the Mokam nullah, a tributary of the Kalpāni. The country rises so rapidly on the north of the canal up to the foot of the hills that it cannot be brought under command. The canal tract itself is cut up by innumerable nullahs running generally from north to south, and carrying the drainage from the hills on the north to the Swāt and Kābul rivers on the west and south. The great cost of the canal was due to the difficulty of taking it across these channels, some of which are of great size.

The main canal was opened in 1885, and the trans-Kalpāni distributary in 1899. The Naushahra minor, a channel irrigating two grass farms near Naushahra, was constructed in 1901. The area irrigated in both harvests during the three years ending 1901–2 averaged 161,000 acres, and in 1903–4 it was 159,000 acres. The total capital expenditure to the end of March, 1904, was 41·4 lakhs. The canal was originally sanctioned as a protective work, no profit being anticipated, owing to the high cost of construction. The whole accumulated interest charges were, however, paid off in fifteen years, and the net revenue in 1903–4 (Rs. 4,57,000) exceeded 10 per cent. on the capital expended. The canal has thus become a remunerative investment to Government, besides contributing in no small degree to the peace of the border. It fails, however, to touch the part of Yūsufzai between the main channel and the border hills to the north, where water is badly needed; and it is accordingly proposed to drive a tunnel through the Malakand range and tap the Swāt river near Chakdarra.

As the river is fed from the snows, it attains its greatest volume in the summer months, and thus water would be abundant just at the time it is most needed. A canal would be made from Dargai, with branches running west to Abāzai, the head of the parent canal, and south-east to the Indus at Pehūr and the Kābul river at Jahāngīra. These branches would practically command all of Peshāwar District north of the Swāt and Kābul rivers which is not already canal-irrigated—an area of about 600 square miles.

Syāmbāzār.—Village in the Arāmbāgh subdivision of Hooghly District, Bengal, situated in 22° 54′ N. and 87° 34′ E. Population (1901), 3,494. Its weavers are famous for their *tasar* silk fabrics, and it carries on some trade in *tasar* cocoons and ebony goods. Badanganj, a village about a mile distant, has a large timber trade. It has an old *sarai* or resthouse dating, according to an inscription on it, from 1747.

Syāmnagar.—Village in the Barrackpore subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 50′ N. and 88° 24′ E., on the east bank of the Hooghly river, with a station on the Eastern Bengal State Railway, 19 miles north of Calcutta. Population (1901), 102. A short distance east of the station are the ruins of an old fort surrounded by a moat, 4 miles in circumference, built in the eighteenth century by a Rājā of Burdwān as a refuge from the Marāthās. The fort now belongs to the Tagore family of Calcutta, and its ramparts are studded with thick date plantations. A Sanskrit college and a charitable dispensary are maintained by Mahārājā Sir Jotindra Mohan Tagore. Syāmnagar lies within the GĀRULIA municipality.

Sydapet.—Subdivision, *tāluk*, and town in Chingleput District, Madras. *See* SAIDAPET.

Sylhet District (*Srihatta*).—District on the south-west frontier of Eastern Bengal and Assam, lying between 23° 59′ and 25° 13′ N. and 90° 56′ and 92° 36′ E., with an area of 5,388 square miles. It is bounded on the north by the Khāsi and Jaintiā Hills; on the east by Cāchār; on the south by the Lushai Hills and the State of Hill Tippera; and on the west by the Eastern Bengal Districts of Tippera and Mymensingh. Sylhet consists of the lower valley of the Barāk or Surmā river, a rich alluvial tract about 70 miles wide, bounded north and south by mountains, and opening westwards to the plain of Eastern Bengal. The greater part of the District is a uniform level, only broken by clusters of little hillocks called *tīlas*, and intersected by a network of rivers and drainage channels. During the rainy season, from June to October, the torrents that pour down from the surrounding hills convert the entire western part into a sea of water. The villages are, as a rule,

Physical aspects.

built on the banks of the rivers, which, as is the case in most alluvial tracts, are raised by the annual flood deposits to a higher level than that of the surrounding country, and stand out above the waste of waters like islands in a lake. The central and eastern portion consists of a broad plain, covered with rice-fields, and dotted over with hamlets embowered in groves of fruit trees and bamboos. On the north the Khāsi Hills rise abruptly like a wall from the level of the plain. On the south the Tippera Hills throw out eight spurs into the valley, the highest of which is about 1,000 feet above sea-level. In their natural state these hills are overgrown with grass and low scrub jungle, but many have been cleared for the cultivation of tea.

The river system of Sylhet is constituted by the Barāk or SURMĀ, with its many tributaries and offshoots. This river enters the District from Cāchār, and forthwith bifurcates into two branches. One, under the name of the Surmā, flows beneath the hills bordering the north of the District; the other, called the Kusiyārā, runs in a south-westerly direction, and the two unite again near the south-western boundary to fall into the estuary of the Meghnā. The principal tributaries on the north bank are the Lubha, the BOGĀPĀNI, and the JĀDUKĀTA, while from the Lushai and Tippera Hills come the SINGLĀ, the LANGAI, the MANU, and the KHOWAI. There are no lakes in the ordinary meaning of the term, but the low-lying *haors*, or swamps, are a peculiar feature of the District. During the rains they become filled with water; but in the cold season this dries up, except in the very centre of the basin, and the land affords excellent pasturage or can be sown with mustard or early rice. The submerged area is being steadily reduced by the deposit of silt, and in course of time these basins will no doubt be raised above flood-level.

The plain presents the usual characteristics of an alluvial tract, but the process of deltaic formation has proceeded slowly, and the town of Sylhet is only 48 feet above sea-level. The low ranges of hills are, for the most part, composed of sandstone of Upper Tertiary origin, and the *tilas* are formed of layers of sand, clay, and gravel, highly indurated by a ferruginous cement.

The vegetation of the plains of Sylhet does not differ materially from that of Eastern Bengal. The marshes are covered with grasses and reeds, and during the rainy season with floating islands of aquatic plants and sedges. The low hills are clothed with scrub, and towards the south with forest.

Wild animals are not common, except at the foot of the hills, where elephants, tigers, leopards, wild hog, and deer are found. Teal and wild duck abound in the low-lying marshy country to the west, and in the Jaintiā plains to the east; and wild geese, jungle-fowl, and

pheasants are common. The rivers swarm with fish, and the drying of fish forms an important industry. Excellent mahseer fishing is to be had in the streams issuing from the northern hills.

The climate is characterized by extreme humidity. The winter is milder than that of the Assam Valley, but there is no hot season, and the heavy precipitation during the rains keeps the air unusually cool. The country is fairly healthy, except at the foot of the hills in the north and south, where malaria is not uncommon.

The monsoon clouds sweeping up the valley are stopped by the precipitous face of the Khāsi and Jaintiā Hills, and descend in torrents of rain. In the north of the District the annual fall averages between 200 and 250 inches; but towards the south the effect of the monsoon is less pronounced, and the normal rainfall is only about 100 inches. The whole of the western portion of the District is under water during the rains; but these floods are looked upon as a matter of course, and the water, when it subsides, leaves behind a layer of fertilizing silt. Severe shocks of earthquake were felt in Sylhet in January, 1869, and October, 1882, but the damage done was inconsiderable in comparison with the havoc wrought by the earthquake of June 12, 1897. Nearly all the masonry buildings in the north of the District were wrecked, the banks of the rivers caved in, the earth was furrowed by cracks and fissures, and bridges and embanked roads were destroyed. The total number of deaths reported was 545; but had the catastrophe occurred at night, this number would have been very largely increased. The majority of these casualties were due to drowning, but cases are said to have occurred in which people were actually swallowed up by the earth.

History.

The District was at one time divided into at least three petty kingdoms: Gor, or Sylhet proper, LAUR, and JAINTIĀ; and the country south of the Kusiyārā seems to have been under the control of the Rājā of Hill Tippera. Gor was conquered by the Muhammadans in A.D. 1384, the last Hindu king, Gaur Gobind, being overcome more by the magic of the *fakīr*, Shāh Jalāl, than by the prowess of the officer in command of the expedition, Sikandar Ghāzī. After the death of Shāh Jalāl, Gor was included in the kingdom of Bengal and placed in charge of a Nawāb. In the reign of Akbar it passed with the rest of Bengal into the hands of the Mughals; and, in the time of this emperor, Laur was also conquered, though its rulers were for some time entrusted with the charge of the frontier, and were exempt from the payment of land revenue. Gor and Laur were included in Bengal when the British obtained the Dīwāni of that Province in 1765. Jaintiā was never conquered by the Muhammadans, and retained its independence till 1835, when it was annexed

by the British Government, as no satisfaction could be obtained for the murder of three British subjects, who had been kidnapped and sacrificed to the goddess Kālī.

During the early days of British rule, Sylhet, lying on the outskirts of the Company's territories, was much neglected. The population was turbulent, means of communication were difficult, and the arts of civilization were in a backward condition. The savage tribes living to the north and south of the valley disturbed the peace of the plains, and there were continual disputes as to the boundary between British territory and the Native State of Hill Tippera. On the south the offending tribes were the Kūkis and Lushais. In 1844 the Kūkis raided and secured 20 heads, and three years later killed 150 persons; but the scene of the massacre was, after careful inquiry, found to be beyond the frontier of the District. Another raid was committed in 1849, and an expedition was sent into the hills in the next year, which kept the country quiet for a time. The Lushais, however, broke out again in 1862, 1868, and 1871. The expedition sent into the hills in 1871 had a most salutary effect; and, though further expenditure of life and money was required before the tribe was finally subdued, no raids have been committed on the plains of Sylhet since that date. At the beginning of the nineteenth century robbery and murder were also common on the northern frontier, but the Khāsis were soon pacified after the annexation of the Assam Valley, and the last outbreak took place in 1831. In 1857 a party of sepoy mutineers from Chittagong entered the District from Hill Tippera, but were defeated at Lātu and driven into Cāchār. The District originally formed part of the Dacca Division of Bengal, but in 1874 it was placed under the charge of the newly appointed Chief Commissioner of Assam.

Sylhet contains few archaeological remains of interest. The mosque of Shāh Jalāl in Sylhet town is, however, deeply venerated; and at Phāljor in *pargana* Baurbhāg there is a piece of stone which is said to be Satī's left leg, which fell there when she was hewn in pieces by Vishnu, while her neck is said to have fallen near Sylhet town.

Population.

The District, which is by far the most populous in Assam, contains 5 towns and 8,330 villages. The population at each of the four last enumerations was: (1872) 1,719,539, (1881) 1,969,009, (1891) 2,154,593, and (1901) 2,241,848. The comparatively small increase during the last intercensal period is due to the unhealthiness of the North and South Sylhet subdivisions, where the population outside tea gardens decreased by about 4 per cent. The District includes five subdivisions: NORTH SYLHET, with head-quarters at Sylhet town; SOUTH SYLHET, with head-quarters at Maulavi Bāzār; and SUNĀMGANJ, HABIGANJ, and KARĪMGANJ, with head-quarters at places of the same name.

The following table gives particulars of area, towns and villages, and population according to the Census of 1901:—

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
North Sylhet	1,055	1	1,956	463,477	439	−3·9	23,590
Sunāmganj .	1,493	1	2,493	433,752	291	+4·9	13,961
Habiganj .	952	1	1,935	555,001	583	+9·9	27,194
South Sylhet	840	1	1,022	379,158	451	+2·5	14,504
Karīmganj .	1,048	1	924	410,460	392	+6·7	18,270
District total	5,388	5	8,330	2,241,848	416	+4·0	97,519

Nearly 53 per cent. of the population in 1901 returned themselves as Muhammadans, and nearly 47 per cent. as Hindus.

Bengali is the common speech of the people, and was returned by 92 per cent. of the population, though the local dialect known as Sylhetī differs materially from the language spoken in Bengal proper. Five per cent. speak Hindī and one per cent. Manipurī. In spite of the importance of the tea industry, the proportion of foreigners is much lower than in most of the plains Districts of Assam; in 1901 they formed only 7 per cent. of the whole.

The respectable Hindu castes are much more strongly represented in Sylhet than in other Districts of Assam. In 1901 Brāhmans numbered 40,000 and Kāyasths 64,000, but many of these have probably a somewhat doubtful title to the names. The Navasākha or functional castes, traditionally nine in number, from whose hands water can be taken by Brāhmans, are found here as in Bengal. Those most strongly represented are the Baruis or betel-leaf growers (16,000), the Goālās or cowherds (14,000), the Nāpits or barbers (21,000), and the Telis or oil-pressers (30,000). The chief cultivating caste of Sylhet is the Dās (164,000), but the Jugis or weavers (79,000) have almost entirely forsaken the loom for the plough. The Shāhās (34,000) are by tradition liquor-sellers, but have now taken largely to general trade. The fishing and boating castes are represented by the Dom-Patnis (73,000), the Kaibarttas (44,000), and the Namasūdras or Chandāls (132,000). The tribes most largely represented are the Manipuris, the Tipperas, and the Haijongs. The last-named people are only found in any numbers in the Gāro Hills and in the adjacent Sunāmganj subdivision. Their language is akin to Bengali and they profess to be Hindus, but there is probably a considerable admixture of hill blood in their veins. Members of European and allied races in the District numbered 317 in 1901. Nearly 82 per cent. of the population in that

year were supported by agriculture, a proportion which, for Assam, is comparatively low, and is accounted for by the presence of the fishing and functional castes in considerable numbers. The proportion of priests is also large.

Members of the Welsh Presbyterian Mission are stationed at Maulavi Bāzār, Sylhet, and Karīmganj, and there is a Roman Catholic priest at Badarpur; but the total number of native Christians in the District in 1901 was only 394.

Agriculture.

The soil consists, for the most part, of a blue clay, which becomes black on the borders of the swamps, or *haors*; but the character of the crop depends more upon the level of the land, the liability to flood, and the rainfall than upon the constituents of the soil in which it is grown. Rice, which is the staple crop, falls into two classes, early and late. Early rice includes *aus* and *sailbura*, or *boro*, a variety which is sown on low land when the water subsides in November and is reaped in the spring. Late rice consists of *sail*, which is sown about May, transplanted two months afterwards, and reaped in December; and *āman*, a long-stemmed variety, which is sown in April or May, and ripens towards the end of the year.

The following table shows the area of settled and cultivated land, in square miles:—

Subdivision.	Area shown in the revenue accounts.			Forests.
	Settled.	Unsettled.	Cultivated.	
North Sylhet	929	126	3,770	...
Sunāmganj	1,345	148		...
Habiganj	929	23		...
South Sylhet	670	170		...
Karīmganj	774	274		103
Total	4,647	741	3,770	103

The estimated area (in square miles) under the principal crops in 1903–4 was rice 3,220, linseed 108, mustard 58, and sugar-cane 23. The cultivation of jute is believed to be extending, and it is thought that there are about 9,200 acres under that fibre; but, in the absence of definite measurements, all these figures have to be received with caution. Cotton is grown by the hill tribes, and minor crops include *til*, linseed, tobacco, China millet, and different kinds of pulse.

The greater portion of the District is permanently settled, and there are no means of ascertaining the extent to which cultivation is increasing. Little has been done to improve the quality of the staple crops or to introduce new varieties, and the system of making loans to agriculturists is still in its infancy. In recent years the District has, however,

witnessed a great development of the tea industry. The tea plant was first discovered growing wild in 1856, and gardens were opened out in the following year; but some time elapsed before capital was attracted to Sylhet to any considerable extent. In 1875 the out-turn of manufactured tea was only 470,000 lb. By 1882 it had risen to 4,660,000 lb., but this was barely a third of the yield in Cāchār or Sibsāgar. Since then the industry has grown rapidly in importance. In 1904 there were 124 gardens with 72,497 acres planted out, which yielded 39,000,000 lb. of manufactured tea, and gave employment to 194 Europeans and 79,397 natives, nearly all of whom had been brought from other parts of India. The majority of the gardens are situated in the south of the District, on the low hills projecting into the plain from Tippera and in the intervening valleys. As in Cāchār, the yield of leaf is large, but the flavour is not as good as that of Assam tea. The largest companies are the Consolidated Tea and Lands Company, with head-quarters in the Bālisirā valley; the Chargolā Tea Association, in the Singlā valley; and the Langlā Tea Company, in the South Sylhet subdivision.

No attention is paid to stock-breeding, and the cattle are poor, undersized animals. During the dry season they are herded in the *haors* or turned loose to graze on the rice stubble; but in the rains, when the country is under water, they are fed on cut grass or straw. Buffaloes are, as a rule, imported from Bengal. Goats are usually kept for food or sacrificial purposes.

Artificial irrigation is only used for the *boro* crop, which is sown in the cold season. The water lying in the centre of a basin is retained by an embankment, and then distributed through small channels over the neighbouring fields.

The plains portion of the District has been almost denuded of timber; but the low hills are still to some extent covered with forest, the greater part of which is, however, included within the limits of the permanently settled estates. There are two Reserves, situated in the south-east corner of the Karīmganj subdivision, which cover an area of 103 square miles; and the total area of Government waste or 'unclassed' state forest amounts to 177 square miles. There is a considerable demand for timber in both Sylhet and the neighbouring Districts of Eastern Bengal, but the bulk of the supply is obtained from Cāchār, Hill Tippera, or private land. The most valuable timber trees are *jarul* or *ajhar* (*Lagerstroemia Flos Reginae*) and *nahor* (*Mesua ferrea*).

No minerals are worked within the District, though the excellent limestone extracted from the hills immediately beyond the northern border is generally burnt on the banks of the Surmā and other rivers, and is known to the trade by the name of 'Sylhet lime.'

Apart from tea, the industries of Sylhet are in a somewhat languish-

ing condition. The Manipuri women settled in the District weave cotton cloth, handkerchiefs, and mosquito curtains; but weaving is not practised, as in the Assam Valley, as a home industry, and even the professional weaving castes have largely abandoned that occupation for agriculture. At the village of Laskarpur there was formerly a colony of Muhammadans who inlaid iron weapons with silver and brass scroll-work, or lac with feathers and talc; but these industries have almost died out. The famous *sitalpāti* mats are still made; and there is a trade in bangles cut from shells, basket-work furniture, leaf umbrellas, and other things of that nature. Boat-building has always been important in Sylhet. Mr. Lindsay, the Collector in 1778, built one ship of 400 tons burden and a fleet of twenty craft which carried rice to Madras; and large numbers of boats are still made every year. Blacksmiths forge hoes, billhooks, and axes; and rough pottery is made, but not in sufficient quantities to satisfy the local demand. In *pargana* Pāthāria there is a manufacture of *agar attar*, a perfume distilled from the resinous sap of the *agar* tree (*Aquilaria Agallocha*), which is much esteemed by Oriental nations, and is exported via Calcutta to Turkey and Arabia. The only factory, besides those in which tea is manufactured, is a saw-mill at Bhāngā Bāzār, which in 1903 gave employment to one European and 50 natives.

Trade and communications.

The trade of the District is very considerable. The principal imports are cotton piece-goods, gram and pulse, metals, kerosene and other oils, salt, sugar, spices, and unmanufactured tobacco. The chief exports are rice, hides, oilseeds, lime and limestone, and tea. The bulk of the trade is with the neighbouring Province of Bengal, and is carried by country boats, which travel along the numerous waterways into almost every corner of the District. Steamers, however, have a large share, and the amount carried by the Assam-Bengal Railway is steadily increasing. The largest mart is at BĀLĀGANJ on the Kusiyārā. Other important places are CHHĀTAK, where there is a big business in lime, oranges, and other products of the Khāsi Hills; HABIGANJ, Sunāmganj, AJMIRIGANJ, and KARĪMGANJ, which is conveniently situated on both the river and the railway. SYLHET TOWN is still the largest place; but it is steadily declining in importance, as the bed of the river has silted up and steamers are no longer able to come so far in the dry season, while it is far removed both from the principal centres of the tea industry and from the railway. In addition to these established marts, there are a large number of bi-weekly markets at which the villagers dispose of a great deal of their produce. Some of the wealthiest traders are Mārwāris, but they do not here enjoy the pre-eminence to which they have attained in the Assam Valley. Many of the natives of Sylhet, more especially the Shāhās,

are keen and enterprising men of business, and there are a large number of traders from the neighbouring Districts of Bengal. Rice is exported in considerable quantities to the tea gardens of Cāchār; and the trade with Hill Tippera, which lies to the south, is valued at about 6 lakhs a year. The chief imports from this State are timber, bamboos, and raw cotton; the most important exports are fish, gram and pulse, salt, tobacco, and kerosene and other oils.

The Assam-Bengal Railway runs for 120 miles through the south of the District between Chāndurā and Badarpur, connecting it with the port of Chittagong, and, by means of the steamer service between Chāndpur and Goalundo, with Calcutta. A light railway has also been sanctioned from Dwārā Bāzār on the Surmā river to the Maolong coal-field in the Khāsi Hills. The India General Steam Navigation Company and the Rivers Steam Navigation Company run a daily service of steamers during the rainy season from Calcutta up the Kusiyārā into Cāchār. Small steamers also run from Karīmganj by the Langai to Langai *ghāt*, up the Manu to Chatlapur, along the Doloi to Kurmā, and from Markhali near the western border of the District past Sunāmganj and Chhātak to Sylhet town. During the cold season the large steamers proceed to Chhātak; beyond that point there is not enough water in the Surmā for steamer traffic in the dry season. Through traffic continues to go from Markhali to Silchar, but small feeder-steamers have to be employed, as the river contains very little water. The total length of unmetalled cart-roads maintained in 1903-4 was 1,559 miles, of metalled roads 7 miles, and of bridle-paths 118 miles. With the exception of 22 miles of road and 118 miles of bridle-path, which were under the charge of the Public Works department, and the roads within municipal limits, all are maintained from Local funds. Water is, however, the recognized means of transport and locomotion, and in many parts of the District roads would be liable to obstruct the drainage and would thus have a prejudicial effect upon cultivation. During the dry months a large number of cold-season tracks are made over the fields. The most important lines of communication are those from Sylhet to Silchar via Karīmganj and Badarpur, and to the Kulaurā railway station via Fenchuganj; and the roads that connect Maulavi Bāzār and Habiganj with the railway. Large sums of money have also been spent on the construction of the Sunāmganj-Paglā road, and the road from Salutikar to Companyganj, which is a section of the route from Sylhet to Shillong. Both of these roads have been made across the line of drainage, and are exposed to enormous pressure from the floods that pour down from the hills. Except in the immediate vicinity of tea gardens, there is hardly any cart traffic, and goods taken by land are, as a rule, carried by coolies.

Like the rest of Assam, Sylhet has been free from scarcity during

the past century; but it is said that nearly one-third of the population died in 1781 from the effects of a famine, caused by a flood which swept away the produce of an unusually bountiful harvest.

Famine.

In 1901 some distress was caused in the western part of the District by the failure of the harvest of the previous year, and a few thousand rupees were distributed in relief by the local authorities.

Administration.

For general administrative purposes, the District is divided into five subdivisions: NORTH SYLHET, which is in the immediate charge of the Deputy-Commissioner; SOUTH SYLHET and KARĪMGANJ, which contain a considerable European population and are in charge of members of the Indian Civil Service; and HABIGANJ and SUNĀMGANJ, which are usually entrusted to native magistrates. The superior staff includes the usual officers, but the number of Subordinate magistrates is larger than generally in Assam. This is rendered necessary by the density of the population and the complexity of the land revenue settlement.

Sylhet differs from the rest of Assam and resembles Bengal in its arrangements for the administration of civil justice. The District Magistrate and his Assistants do not, as elsewhere, exercise civil jurisdiction powers, this branch of the work being entrusted to the District Judge assisted by two Sub-Judges and ten Munsifs. The peculiar features of the revenue settlement give rise to a large number of rent and title suits, and unfortunately the parties concerned not unfrequently take the law into their own hands. In 1903 there were no less than 402 cases of rioting, a few of which were attended with loss of life. A special feature of the District is the river dacoities committed by bands of armed men, who attack boats loaded with merchandise. Detection is extremely difficult, as the robbers leave no tracks, and can quickly cross the frontier of the Province. Burglaries and thefts are not uncommon. The Sessions Judge of Sylhet exercises the same functions in Cāchār, and the High Court at Calcutta is the chief appellate authority for both civil and criminal cases.

In 1582 the land revenue of Sylhet is said to have been assessed by the Mughals at Rs. 1,67,000; but the greater part of this seems to have been absorbed in the defence of the frontier, and the District apparently yielded little revenue beyond a few elephants, spices, and wood. When it passed into the hands of the East India Company, the revenue demand was fixed by Mr. Holland in 1776 at $2\frac{1}{2}$ lakhs; but considerable difficulty was experienced in collecting this amount, though it was declared to be by no means an oppressive assessment. Payment was made in cowries, more than 5,000 of which went to one rupee, and the management of this unwieldy medium of circulation occasioned much loss and trouble. In 1789 Sylhet was measured

up in a very perfunctory manner by the Collector, Mr. Willes, and an assessment imposed of nearly 3¼ lakhs. This assessment was subsequently made permanent, but it only applied to 2,100 square miles, large areas of waste being altogether omitted. Two features distinguish the Permanent Settlement as here effected from that carried out in most of the Districts of Bengal. The leases were issued after the land had been, in theory at any rate, surveyed and demarcated, and were given, not to large *zamindārs*, but to the actual tillers of the soil. The result is that all land not included in the Permanent Settlement or subsequently alienated is claimed as the property of Government, and the number of estates and proprietors is extraordinarily large. Altogether there are nearly 50,000 permanently settled estates, more than 21,000 of which pay a revenue of less than one rupee, while less than 500 pay one hundred rupees or over. Considerable uncertainty has always existed as to the exact boundaries of the areas included within the Permanent Settlement, and it is quite certain that its provisions have, from time to time, been extended to land to which it did not originally apply. Of the various kinds of temporarily settled estates, the largest class is that known as *ilām*, or land not included in the Permanent Settlement, for which notices or *ilāms* calling for claimants or objectors were issued in 1802. These estates, which are scattered all over the District, covering an area of 108,000 acres, have been settled from time to time, the last settlement having been concluded in 1902. The rates assessed varied from 1½ annas per acre for waste to Rs. 2–10 for the best class of homestead, and produced an enhancement of 36 per cent., chiefly owing to large extensions of cultivation. Land has also been taken up for tea in Sylhet under the different rules prescribed from time to time. A full account of the various tenures in force in the District will be found in the Introduction to the Assam *Land Revenue Manual*. The JAINTIĀ PARGANAS, which lie between the Jaintiā Hills and the Surmā river, were, however, never included in the Permanent Settlement. They cover an area of about 484 square miles, and formed part of the territory of the Jaintiā Rājā till 1835, when he was deprived of them as a punishment for atrocities committed by him on British subjects. They were last resettled in 1898, the rates imposed varying from Rs. 2–10 per acre of first-class homestead to 3 annas per acre for waste.

The land revenue and total revenue of the District are shown in the table below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue	4,89	6,34	7,77	8,42
Total revenue	11,93*	18,75	21,77	22,88

* Exclusive of forest revenue.

Outside the towns of Sylhet and Habiganj, which are under municipal law, the local affairs of the subdivisions are managed by boards, presided over by the Deputy-Commissioner or the Subdivisional officers, and composed of Europeans elected by the managers of tea gardens, and natives, most of whom are elected by the members of the *chaukīdāri panchāyats*. The expenditure of these five boards in 1903-4 exceeded 3¾ lakhs, nearly one-half of which was laid out on public works and one-third on education. The chief source of income was, as usual, local rates.

For the purposes of the prevention and detection of crime, the District is divided into 31 investigating centres. The police force in 1904 consisted of 84 officers and 533 constables, with 5,158 *chaukīdārs* or village watchmen. In addition to the Sylhet District jail, there are jails at each of the subdivisional head-quarters, which can collectively accommodate 162 males and 12 females.

Education has made more progress in Sylhet than in most of the Districts of the Province. The number of pupils under instruction in 1880-1, 1890-1, 1900-1, and 1903-4 was 11,508, 26,913, 40,269, and 35,144 respectively. During the past thirty years there has been a great development of education, and the number of scholars in 1903-4 was more than five times the number in 1874-5. At the Census of 1901, 4·3 per cent. of the population (8·1 males and 0·4 females) were returned as literate. This proportion was exceeded only by the neighbouring Districts of Cāchār and the Khāsi and Jaintiā Hills. There were 872 primary and 64 secondary schools, and one special school, in the District in 1903-4. The number of female scholars was 1,664. The great majority of the pupils under instruction were only in primary classes, and no girl had advanced beyond that stage. Of the male population of school-going age, 16 per cent. were in the primary stage of instruction, and of the female population of the same age one per cent. The proportion of Muhammadans under instruction to those of school-going age for boys was 12 and for girls less than one per cent. There is an aided second-grade Arts college in the town of Sylhet. The total expenditure on education in 1903-4 was Rs. 2,52,000, of which Rs. 60,000 was derived from fees. Of the direct expenditure, 36 per cent. was devoted to primary schools.

The District possesses 5 hospitals and 41 dispensaries [1], which contain accommodation for 56 in-patients. In 1904 the number of cases treated was 302,000, of whom 800 were in-patients, and 10,300 operations were performed. The expenditure was Rs. 55,000, the greater part of which was met from Local and municipal funds.

The proportion of persons successfully vaccinated in 1903-4 was

[1] Includes one dispensary, details of which are not available.

40 per 1,000, or about 4 per 1,000 less than the average for the whole Province. Vaccination is compulsory only in the town of Sylhet.

[Sir W. W. Hunter, *A Statistical Account of Assam*, vol. ii (1879); B. C. Allen, *District Gazetteer of Sylhet* (1906).]

Sylhet, North.—Head-quarters subdivision of Sylhet District, Eastern Bengal and Assam, lying between 24° 36′ and 25° 11′ N. and 91° 38′ and 92° 26′ E., with an area of 1,055 square miles. On the north it is bounded by the Khāsi and Jaintiā Hills. The north-east corner of the subdivision, which is known as the JAINTIĀ PARGANAS, originally formed part of the territories of the Jaintiā Rājā. The greater part of North Sylhet consists of a flat plain, but a little to the east of Sylhet town low hills crop up above the alluvium. The general level of the country is higher than in the west of the District, but the enormous rainfall precipitated on the face of the hills renders the low land at their foot quite unfit for anything but cold-season cultivation. The average fall at Sylhet town is 157 inches, while at Lālākhāl, which is nearer the hills, it is over 100 inches more. The population in 1891 was 482,341, which by 1901 had fallen to 463,477, a decrease of nearly 4 per cent., as compared with an increase of 4 per cent. in the District as a whole. The cause of the decrease appears to have been a severe epidemic of malarial fever in 1897 and 1898; but the population is still dense, there being 439 persons per square mile, as compared with 416 in the District as a whole. The subdivision contains one town, SYLHET (population, 13,893), the District head-quarters; and 1,956 villages. The staple food-crop is transplanted rice. There are 22 tea gardens, which in 1904 had 7,684 acres under plant and gave employment to 15 Europeans and 7,211 natives. For administrative purposes the subdivision comprises the three *thānas* of Sylhet, Kānairghāt, and Bālāganj, and is under the immediate charge of the Deputy-Commissioner of the District. The demand on account of land revenue and cesses in 1903–4 was Rs. 3,47,000.

Sylhet, South.—Subdivision in the south of Sylhet District, Eastern Bengal and Assam, lying between 24° 7′ and 24° 40′ N. and 91° 37′ and 92° 15′ E., with an area of 840 square miles. The general appearance of the subdivision is that of a level plain, into which three spurs project from the Tippera hills. As in the east of Sylhet, the rainfall is very heavy, but the average at Maulavi Bāzār (104 inches) is considerably less than in the north of the District. The population rose from 369,641 in 1891 to 379,158 in 1901; but the whole of this increase was due to the tea-garden population, which numbered about 70,000, and the village population decreased by nearly 4 per cent. The density is 451 persons per square mile, which is considerably above the average for the District as a whole. The head-quarters are at Maulavi Bāzār (population, 2,481), situated on the Manu river at the northern

extremity of a range of low hills. It contains a small jail and the courts, but is otherwise of little importance. The staple food-crop is *sail*, or transplanted winter rice. The cultivation of tea is an important industry; in 1904 there were 55 gardens with 33,410 acres under plant, which gave employment to 102 Europeans and 38,555 natives. The Assam-Bengal Railway runs through the south of the subdivision, but the principal rivers, such as the Kusiyārā and MANU, are also largely used as trade routes. For administrative purposes South Sylhet is divided into the three *thānas* of Maulavi Bāzār, Kamalganj, and Hingājiya, and contains 1,022 villages. The subdivisional magistrate is almost invariably a European. The demand on account of land revenue and cesses in 1903–4 was Rs. 2,27,000.

Sylhet Town.—Head-quarters of the District of the same name in Eastern Bengal and Assam, situated in 24° 53′ N. and 91° 52′ E., on the right bank of the Surmā river. The road from Shillong to Cāchār runs through the town; but Sylhet is somewhat inaccessible to the outside world, as during the dry season steamers cannot come up the river, and the nearest railway station is 30 miles away. This inaccessibility reacts unfavourably upon its trade. The town is steadily declining in importance, the population at the last four enumerations being: (1872) 16,846, (1881) 14,407, (1891) 14,027, and (1901) 13,893. Sylhet was the capital of a Hindu Rājā, who was conquered at the end of the fourteenth century by the Muhammadans. They were materially assisted in this enterprise by the *fakīr* Shāh Jalāl, whose mosque is situated a little to the north of the town. The place does not appear to have ever been of great importance, and is described by Mr. Lindsay, Collector in 1778, as an inconsiderable bazar, the houses of the inhabitants being fantastically built and scattered upon the rising ground and numerous hills, so buried in groves as to be scarcely discernible. This characteristic persists to the present day, and the general appearance of the place is distinctly rural. The average rainfall is heavy (157 inches), and the climate is fairly cool and healthy even in the rains. Most of the masonry buildings were destroyed by the great earthquake of 1897, when 55 people perished in the ruins. They have since been rebuilt, and few traces of this catastrophe are now to be seen. Sylhet is the head-quarters of the ordinary District staff, and of the Sessions Judge of the Surmā Valley, and contains the largest jail in the Province, with accommodation for 658 persons. The convicts are employed in oil-pressing, *surkhi*-pounding, weaving, carpentry, and bamboo- and cane-work. A branch of the Welsh Presbyterian Mission has for some time been located in the town, and there is a wealthy and important Hindu *akhra* or monastery.

Sylhet was constituted a municipality under (Bengal) Act V of 1876 in 1878, and (Bengal) Act III of 1884 was subsequently introduced in

1888. The municipal receipts and expenditure during the ten years ending 1902–3 averaged Rs. 23,000. In 1903–4 the income was Rs. 33,000, including tax on houses and lands (Rs. 9,000) and tolls (Rs. 7,400); and the expenditure was Rs. 22,000, chiefly incurred on conservancy (Rs. 6,800) and public works (Rs. 3,500). The local manufactures include leaf umbrellas, shell bracelets, *sitalpāti* mats, basket-work furniture, mosquito curtains, and cotton cloth. All of these are, however, home industries, and the general trade of the place is declining. The principal educational institutions are two high schools and a second-grade college founded by Rājā Girish Chandra Roy, a *zamīndār* of the District, in 1892, which in 1903–4 had an average daily attendance of 35 students. There are four small printing presses in the town, at which two papers and two magazines are published.

Syriam.—Early European factory in Burma. *See* HANTHAWADDY DISTRICT.

Tabayin.—South-western township of Shwebo District, Upper Burma, extending from the Mu river to the Upper Chindwin District, between 22° 24′ and 22° 49′ N. and 94° 50′ and 95° 34′ E., with an area of 615 square miles. The township is flat in the east, but broken up by low hills in the west. The population was 32,908 in 1891, and 39,340 in 1901, distributed in 221 villages. The headquarters are at Tabayin (population, 380), about 7 miles west of the Mu, and nearly 25 miles from Shwebo town. The area under cultivation in 1903–4 was 57 square miles, and the land revenue and *thathameda* amounted to Rs. 75,700.

Tada-u.—South-eastern township of Sagaing District, Upper Burma, stretching southwards from the Irrawaddy, between 21° 29′ and 21° 55′ N. and 95° 44′ and 96° 2′ E., with an area of 310 square miles. The population was 39,477 in 1891, and 46,661 in 1901, distributed in 157 villages, the head-quarters being at Tada-u (population, 1,327), a thriving village, a mile or so due south of the remains of the ancient city of Ava. Pinya, a village south of Tada-u, is the site of an old capital of the Shan dynasty. South again of Pinya is a village called Myinzaing, another old Shan capital. A fair quantity of wheat is produced in the township, portions of which, however, are very dry and sterile. There are a few barren hills and ridges, but the country is generally level. The area cultivated in 1903–4 was 117 square miles, and the land revenue and *thathameda* amounted to Rs. 1,15,400.

Tadiandamol.—The highest mountain in Coorg, Southern India (5,729 feet), situated in 12° 13′ N. and 75° 40′ E., in the south-west of the Pādinālknād *tāluk*.

Tādpatri Tāluk.—North-eastern *tāluk* of Anantapur District, Madras, lying between 14° 32′ and 15° 11′ N. and 77° 45′ and 78° 9′ E., with an area of 641 square miles. The population in 1901 was

109,421, compared with 112,656 in 1891. The decrease is due to repeated visitations of cholera during the decade. There are 93 villages and two towns in the *tāluk*: TĀDPATRI (population, 10,859), on the Penner river, the head-quarters; and YĀDIKI (7,389), where there is a deputy-*tahsīldār*. The demand for land revenue and cesses amounted in 1903–4 to Rs. 2,28,000. The country is flat, except on the eastern boundary, where the low range of the Errakonda Hills separates it from Cuddapah and Kurnool, and on the western frontier, where another range divides it from the rest of the District. The Penner flows through the centre of the central plain thus formed, and on either side of it stretch wide sheets of black cotton soil, the most fertile in the District. There is hardly any red earth in the *tāluk*. Cotton is the principal crop; a fine kind of *cholam* is also grown.

Tādpatri Town.—Head-quarters of the *tāluk* of the same name in Anantapur District, Madras, situated in 14° 55′ N. and 78° 1′ E., on the right bank of the Penner river, 2½ miles from the railway station at Nandiālpād. Population (1901), 10,859. It is said to have been founded in the sixteenth century by Rāmalinga Nāyudu, a subordinate of the Vijayanagar kings. After the battle of Tālikotā, the country round it was subdued by the Golconda Sultān and a Muhammadan governor appointed. Afterwards it was captured by Morāri Rao, and later by Haidar Alī. It is a considerable trading centre, and is noted for its silk and cotton cloths. It is also a place of much sanctity. Its founder built the temple on the river bank dedicated to Rāmeswara. His son, Timma Nāyudu, erected another temple to Chintalarāyaswāmi. These two shrines are elaborately decorated with sculptures which are some of the finest work extant of the Vijayanagar period. They are executed in a close-grained greenstone that lends itself to minute finish. In the centre of the town another fine temple is now under construction by the local Chettis. Experts consider that it will be as fine a piece of workmanship as its ancient neighbours. Much of the design is being copied from the older work. Tādpatri was greatly damaged by a high flood which swept down the Penner in 1851. Three-fourths of the town was washed away, and much of the temple on the river bank was brought to the ground.

Tagara.—Ancient name of THAIR or Ter, in Osmānābād District, Hyderābād State.

Tagaung.—River-side township in the north of the Ruby Mines District, Upper Burma, lying between 23° 15′ and 24° 1′ N. and 95° 58′ and 96° 33′ E., with an area of 616 square miles. The population was 7,129 in 1891, and 8,609 in 1901, distributed in 71 villages, and is almost exclusively Burman. Tagaung (population, 781), on the Irrawaddy, the site of an ancient Burmese capital, is the head-quarters. The township is flat and but little cultivated. In 1903–4 only 2,000

acres were under cultivation, and the land revenue and *thathameda* amounted to Rs. 18,000.

Taikkala.—An ancient capital in the Bilin township of Thaton District, Lower Burma, the ruins of which lie between Ayetthema and Kinywa in 17° 2′ N. and 97° 2′ E. Its Pāli name is Golamattikanagara, and it is described as follows in the Kalyāni inscriptions:—

'At that time a king, called Sirimasoka, ruled over the country of Suvanna Bhūmi. His capital was situated to the north-west of the Kelasabhapabbatachetiya. The eastern half of this town was situated on an upland plateau, while the western half was built on a plain. This town is called, to this day (A.D. 1476), Golamattikanagara, because it contains many mud-and-wattle houses resembling those of the Gola people. The town was situated on the sea-shore. Thus the Religion was established in this country of Ramannadesa by the two *theras* (Sona and Uttara) in the 236th year that had elapsed since the attainment of Parinirvāna by the Fully Enlightened One.'

Hitherto the theory has been that, at the conclusion of the Third Buddhist Council, Sona and Uttara were sent as missionaries to Taikkala; and that during the fifth century A.D. Buddhaghosha, who is reputed to have brought a complete set of the *Tripitaka* from Ceylon, repaired to the same town. Doubt has, however, been thrown on these traditions.

Taikkala has been identified with the Takola of Ptolemy and the Kalah of the Arabian geographers, and with the Takkala of Professor Lassen, who, however, marked it erroneously on his map a few miles to the north of Tavoy. Up to the sixteenth and seventeenth centuries it was a great seaport. The seashore is now about 12 miles to the west; but cables, ropes, and other relics of sea-going vessels are frequently dug up in the vicinity of the ancient capital.

Taikkyi.—Northern township of Hanthawaddy District, Lower Burma, lying between 17° 3′ and 17° 47′ N. and 95° 45′ and 96° 12′ E., with an area of 898 square miles. The population was 48,084 in 1891, and 73,263 in 1901, dwelling in 470 villages. The western portion of the township is low-lying and thickly populated; the eastern abuts on the Pegu Yoma, and has comparatively few inhabitants. The density is only 81 persons per square mile, as against the District average of 160. The proportion of Karens in the township is high. The headquarters are at the village of Taikkyi (population, 1,643), on the Rangoon-Prome railway, 41 miles from Rangoon. The area cultivated in 1903–4 was 262 square miles, paying Rs. 3,62,000 land revenue.

Taingapatam (the Rutlam of the early European traders).—Port in the Vilavankod *tāluk* of Travancore State, Madras, situated in 8° 14′ N. and 77° 10′ E., at the mouth of the Kuliturai river. Population (1901), 1,105. It was one of the first possessions of the Dutch in Travancore.

Tājpur.—Town in the Dhāmpur *tahsīl* of Bijnor District, United Provinces, situated in 29° 10′ N. and 78° 29′ E., 27 miles south-east of Bijnor town. Population (1901), 5,015. The town is chiefly noted as the residence of the leading Tagā family in the District, some members of which have embraced Christianity. The Tājpur estate was acquired in the eighteenth century, and further extended in the nineteenth for services rendered to the newly established British administration. In 1857 the *zamīndār* or *chaudhri* of Tājpur remained loyal, and was rewarded by the title of Rājā and by remissions of revenue. The present Rājā lives in a fine house built after the European fashion, and is a member of the Provincial Legislative Council. Tājpur contains a dispensary maintained by the Rājā, a primary school with 79 pupils, and an aided girls' school with 32 pupils.

Tājpuri.—Petty State in MAHĪ KĀNTHA, Bombay.

Takht-i-Sulaimān ('Solomon's throne').—A shrine (*ziārat*) on the mountain of the Sulaimān range, North-West Frontier Province, known as the Kaisargarh or Kasi Ghar, but usually called by Europeans the Takht-i-Sulaimān, situated in 31° 41′ N. and 70° E., at an elevation of 11,295 feet above the sea-level. Tradition says that Solomon halted on a ledge some distance below the crest on the southernmost bluff of the Kaisargarh to take a last look over India, whence he was carrying off an Indian bride to Jerusalem. The shrine marks the spot. The *takht*, which was attempted by members of Elphinstone's mission to Kābul in 1809, was first climbed by a European in 1883.

[T. Holdich, *The Indian Borderland*, chap. iv (1901).]

Tāki.—Town in the Basīrhāt subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 35′ N. and 88° 55′ E., on the Jamunā river. Population (1901), 5,089. Tāki is the centre of a considerable rice trade. It was constituted a municipality in 1869. The income and expenditure during the decade ending 1901–2 averaged Rs. 2,200 and Rs. 2,100, respectively. In 1903–4 the income amounted to Rs. 2,300, derived chiefly from a tax on persons (or property tax); and the expenditure was Rs. 1,900.

Tāl State.—*Thakurāt* in the MĀLWĀ AGENCY, Central India.

Tāl Town (*Tāl Mandāwal*).—Head-quarters of the *pargana* of the same name in the Jaora State in the Mālwā Agency of Central India, situated in 24° 43′ N. and 75° 23′ E., 18 miles by a fair-weather road from Jaora station on the Rājputāna-Mālwā Railway. Population (1901), 4,954. The exact date of the foundation of the town is unknown, but tradition assigns it to 1243. In the sixteenth century the Mughal Sūbahdār of Mālwā, assisted by the Doria Rājputs, conquered it. It remained under Mughal control up to 1683, but subsequently passed to some Ponwār Rājputs, from whom it was seized by Holkar in 1810. Holkar retained possession until 1818, when it

was assigned to Ghafūr Khān under the treaty of Mandasor. A municipality was created in 1902. Its average annual income, which is derived from local cesses, amounts to Rs. 1,000.

Talagang Tahsīl.—*Tahsīl* of Attock District, Punjab, lying between 32° 34′ and 33° 12′ N. and 71° 48′ and 72° 32′ E., with an area of 1,198 square miles. The population in 1901 was 92,594, compared with 94,027 in 1891. It contains 86 villages, of which TALAGANG (population, 6,705) is the head-quarters. The land revenue and cesses in 1903–4 amounted to 1·4 lakhs. The Sohān river forms the northern boundary, and the land along its banks is very fertile, and is irrigated by wells. Generally speaking, the *tahsīl* is a table-land intersected by deep ravines. Towards the south it becomes more broken and hilly, and in the south-west culminates in the peak of Sakesar (5,010 feet above the sea), the highest point in the Salt Range.

Talagang Town.—Head-quarters of the *tahsīl* of the same name in Attock District, Punjab, situated in 32° 55′ N. and 72° 28′ E. Population (1901), 6,705. It was founded by an Awān chieftain, about 1625. The place is healthily situated on a dry plateau, well drained by ravines, and has an extensive trade in grain, the staple product of the neighbourhood. Shoes worked with tinsel, which are worn by Punjab women, are largely exported to distant places. Striped cotton cloth (*sūsī*) is also made in considerable quantities, both for home use and for exportation. Talagang formerly had a small cantonment, which was abandoned in 1882. It possesses an Anglo-vernacular middle school and a Government dispensary. The municipality was abolished in 1886.

Tālāgaon.—Town in Amraotī District, Berār. *See* TALEGAON.

Tālagunda.—Village in the Shikārpur *tāluk* of Shimoga District, Mysore, situated in 14° 25′ N. and 75° 15′ E., 2 miles north-east of Belgāmi. Population (1901), 1,005. The original form of the name is Sthānagundūr. It was an *agrahāra* founded on the outskirts of the capital city Belgāmi by the Kadamba king, Mukkanna or Trinetra, perhaps in the third century. Finding no Brāhmans in the south, he obtained from Ahichchatra 12,000 Brāhmans of thirty-two families, or according to other accounts 32,000 Brāhmans, and settled them here. The place is rich in ancient inscriptions, the most important of which is on a pillar in front of a ruined temple. It is of about the fifth century, beautifully engraved in what are called 'box-headed' characters, and contains in well-composed Sanskrit verses the only apparently authentic account that has been found of the origin and rise of the Kadamba dynasty, with other important historical information. There are mounds all over the site marking the ruins of the old *agrahāra*.

Talaings.—The remnant left of the Peguan or Mon race, which from the beginnings of Burmese history peopled the southern portion

of Burma, and was in constant opposition to the kingdoms of Prome, Pagan, and Toungoo. The Talaings belong to a totally different ethnical branch from the majority of the inhabitants of Burma: i.e. they are of Mon-Anam and not of Tibeto-Burman origin. They come of the same prehistoric stock as the Was, the Palaungs, and the Riangs of the Shan States, the Khmers of Cambodia, and the Hkamuks of Siam; but their connexion with these tribes is probably remote. After having more than once gained the upper hand in Burma, they were finally conquered by the Burmans shortly before the British began to take an active political interest in the affairs of the country, and about sixty years before the East India Company acquired any territory within its limits; and since then they have been largely absorbed into the Burman population. In 1901 the number of persons who returned themselves as Talaings was 321,898; in 1891 it had been nearly half as great again. The Talaings are now numerous only in the country round the mouths of the Irrawaddy, the Salween, and the Sittang, which adjoins the ancient Mon capitals of PEGU and THATON. In Amherst District, where they number 132,285, they constitute nearly half the total. Like the Burmans, they are Buddhists; and in customs, pursuits, dress, and physical characteristics they are now practically indistinguishable from the Burmese population among whom they live. The Talaing language has been placed in the north Cambodian group of the Mon-Anam family. It has no tones, and is somewhat more guttural than Burmese, from which it differs considerably in structure. As a vernacular, it is being slowly superseded by Burmese. Of the Talaings in 1901 only 155,100, or less than half, retained Talaing as the language ordinarily used by them. The origin of the name Talaing, which was bestowed upon the race by their Burman conquerors, is doubtful. The theory deriving it from Talinga (a name said to have been given to the race on account of the admixture of immigrant Telugu blood from Madras) seems open to question. The Talaings call themselves Mun.

Talakād.—Town in the Tirumakūdal-Narsipur *tāluk* of Mysore District, Mysore, situated in 12° 11′ N. and 77° 2′ E., on the north bank of the Cauvery, 28 miles south-east of Mysore city. Population (1901), 3,857. The Sanskrit form of the name is Talavanapura. It is of great antiquity, having been the capital of the Ganga kings from the third to the eleventh century. It was then taken by the Cholas, who overthrew the Ganga power. Under them it received the name of Rājarājapura, after the reigning Chola king. About 1116 it was taken by the Hoysalas, who drove the Cholas out of Mysore. During their period it contained seven towns and five *maths*. The associated town of Māyilangi or Mālingi, on the opposite side of the river, was called Jananāthapura. After the Hoysala power had come to an end, in the middle of the fourteenth century, the place passed into the hands of

local chiefs who were tributary to Vijayanagar. Hither the viceroy of Seringapatam retired on being ousted by the Rājā of Mysore in 1610. According to tradition, the latter was eager to gain possession of a costly jewel belonging to the viceroy's wife. In order to secure it he marched upon Talakād, which was taken by escalade. But the Rānī threw the jewel into the river, and drowned herself opposite Mālingi, at the same time uttering the threefold curse—'Let Talakād become sand; let Mālingi become a whirlpool; let the Mysore Rājās go without heirs.' The old city of Talakād is now completely buried beneath hills of sand, stretching for nearly a mile in length, only the tops of two pagodas being visible. More than thirty temples are said to lie beneath the sand. That of Kīrtti-Nārāyana is occasionally opened with great labour to allow access for certain ceremonies. The most imposing temple left uncovered by the sand is that of Vedesvara. The yearly advance of the sand-hills, which drove the inhabitants to abandon their homes and retreat farther inland, has been somewhat checked of late by planting creepers and trees. But the people do nothing, deeming it useless to fight against the curse. A municipality was formed in 1899. The receipts and expenditure during the two years ending 1901 averaged Rs. 800 and Rs. 500. In 1903–4 they were Rs. 1,700 and Rs. 1,800.

Talakona.—Valley, waterfall, and temple in the Vāyalpād *tāluk* of Cuddapah District, Madras, situated in 13° 47′ N. and 79° 14′ E., in the PĀLKONDA HILLS. The approach to the place runs first over uneven country, dotted in the hollows with rice and sugar-cane cultivation, and interspersed with numerous little tanks and immense many-stepped wells. Farther on the richer land gives place to tracts of scrub jungle, gram-fields, and fine tamarind-trees, lapsing, as one approaches the foot of the Pālkonda Hills, into thicker jungle and rocky eminences crowned with giant tors and boulders in grotesque confusion. After passing the last inhabited village outside the belt of forest with which the hills are fringed, the path ascends gradually, crossing stony streams and stretches of sand marked everywhere with the tracks of *sāmbar*, spotted deer, and wild hog, until it reaches the entrance to the deep cleft in the hills in which is situated the waterfall of Talakona. Through dense bamboo jungle, shaded by wild mangoes and other large trees, the way leads along the stream, which hurries from the waterfall until it gains a little open space cleared on the bank of the torrent round a small temple and a resthouse. As evening falls, jungle-fowl call to each other from all parts of the thick under-growth on either side of the stream, *sāmbar* bell in the forest on the slopes, and the owners of the cattle grazing in the forest drive them into enclosures strongly fenced with thorns and lighted with fires to keep off prowling tigers.

The path to the falls leads along the edge of the stream through thick growth relieved by clumps of date-palms and the handsome sulphur-yellow flowers of the wild hemp. Passing two ancient mango-trees known as Rāma and Lakshmana, it rapidly ascends the side of the beautiful little valley at the bottom of which the stream hurries along. Immediately overhead rise the cliffs, clothed with trees for two-thirds of their height, but above that consisting of a deep scarp of bare red rock, the colours of which are in wonderful contrast to the varied shades of green of the forest below. Beneath is the stream, visible now and again through the tangled growth. As it ascends, the path gradually narrows until it is only a yard or so wide as it clings to the side of the valley, and then it suddenly turns and faces the waterfall. The stream above which the path has been running here precipitates itself from the top of the red scarp on the crest of the hills, falls some 70 or 80 feet down a dark hollow on to a black ledge of rock, striking it in a smother of spray, and thence, in numerous smaller falls, hurries to the foot of the valley below the path. To bathe in this fall and in another higher up the cliff purifies from all sin; and on Sivarātri day, in the last week of February, thousands of people consequently brave the tiring journey hither through the jungle and the real and fancied perils which beset it. Arrived at the spot, they first pass through the fall just described, when the water comes rattling and stinging on their shoulders like large hailstones. Then they cross the ledge on to which it dashes and gain a path which leads to the upper fall. This path passes a cave, through which (it is said) a local personage of great sanctity used to travel by underground ways to the holy temple of Tirupati, and up hundreds of steps, which have an aspect of great antiquity and must have taken years of expensive work to put in position. At the top, the river runs placidly along over a flat rocky bed. A hundred yards farther on is the upper fall. It is only about 12 feet high and rolls quietly over the edge of its rocky bed to a platform below, and thence from a clear pool falls some 60 feet to an inaccessible hollow.

At the time of the festival the scene here is one to be remembered: smooth black rocks, green trees, and blue sky above; the fall curving over the lip of the little hollow; the bathers in white and red cloths, their bodies glittering with drops of water; and the priest reciting the appropriate words as each in succession passes under the falling water and sees his sins flowing through the pool below and down the glen to be carried through the plains to the all-absorbing sea.

After bathing in the two falls the pilgrims journey back in their wet clothes to the little temple already mentioned at the entrance to the valley, and there lie prostrate before the god, sometimes for

hours, till they have a vision, which is regarded as the message of the deity to the worshipper. Hundreds of them may be seen there, lying face downwards in their wet clothes for hours, shivering with cold but waiting patiently for the message. A large proportion of them are childless wives or those who have no male offspring, and they undertake this toilsome pilgrimage in the hope that they will thereby be blessed with a son.

Talamba.—Town in the Kabīrwāla *tahsīl* of Multān District, Punjab, situated in 30° 31′ N. and 72° 15′ E., 2 miles from the modern left bank of the Rāvi, and 51 miles north-east of Multān city. Population (1901), 2,526. The present town is built of bricks taken from an old fortress, a mile to the south. This stronghold once possessed great strength, and its antiquity is vouched for by the size of the bricks, described by Cunningham as similar to the oldest in the walls and ruins of Multān. It has been identified with a place taken by Alexander, and again with the Brāhman city mentioned by Arrian in a similar connexion. Talamba is said to have been taken by Mahmūd of Ghazni. Tīmūr plundered the town and massacred the inhabitants, but left the citadel untouched. The site was abandoned, according to tradition, in consequence of a change of course of the Rāvi, which cut off the water-supply about the time of Mahmūd Langāh (1510–25). The town was plundered by Ahmad Shāh. Cunningham describes the ruins as consisting of an open city, protected on the south by a lofty fortress, 1,000 feet square. The outer rampart of earth has a thickness of 200 feet and a height of 20 feet; and a second rampart of equal elevation stands upon its summit. Both were originally faced with large bricks. The municipality was created in 1874. The income during the ten years ending 1902–3 averaged Rs. 2,100, and the expenditure Rs. 2,300. In 1903–4 the income was Rs. 1,800, chiefly from octroi; and the expenditure was Rs. 1,800. The town has a vernacular middle school, maintained by the municipality, and a dispensary. It is a centre of the local trade, and has some reputation for stamped floorcloths.

Tālbahat.—Town in the Lalitpur *tahsīl* of Jhānsi District, United Provinces, situated in 25° 3′ N. and 78° 26′ E., on the Great Indian Peninsula Railway and on the Cawnpore-Saugor road. Population (1901), 5,693. The place was of importance in the Bundelā annals. A fort and palace were built on a rocky range east of the town by Bhārat Sah, Rājā of Chanderī, in 1618. In 1811 it was captured by Colonel Baptiste on behalf of Sindhia, through the treachery of the commander, after a three months' siege. The fort was reduced to its present state of ruin by Sir Hugh Rose in 1858, but still contains some interesting frescoes. East of the fort is a fine lake of 528 acres, formed by two small dams, which supplies water for rice and wheat

cultivation. The town is well drained, and is administered under Act XX of 1856, with an income of about Rs. 600. There is a small industry in blanket-weaving. A school has 75 pupils.

Tālcher.—One of the Tributary States of Orissa, Bengal, lying between 20° 52′ and 21° 18′ N. and 84° 54′ and 85° 16′ E., with an area of 399 square miles. It is bounded on the north by the States of Bāmra and Pāl Lahara; on the east by Dhenkānāl; and on the south and west by Angul District. The Brāhmanī river traverses the State, and Tālcher village, which contains the Rājā's residence, is picturesquely situated on a bend on its right bank. The State contains a coal-field, of which a thorough examination was made in 1875. It was then reported that there is no seam of workable thickness and fairly good quality; that a final and thorough exploration could only be effected at a considerable expense; that the local consumption would never suffice to support a proper mining establishment; and that with the long and costly land carriage no class of coal equal to Rānīganj coal could compete successfully at the Orissa ports with coal sent from Calcutta by sea. The project for utilizing the Tālcher coal-beds has, therefore, been abandoned for the present. Iron and lime are also found near the banks of the Brāhmanī river, which separates Tālcher on the east from Pāl Laharā and Dhenkānāl. Small quantities of gold are found by washing the sand of the river, but little profit accrues to the workers.

The Rājā claims a Rājput origin and descent from the Jaipur ruling family. The State has an estimated revenue of Rs. 65,000, and pays a tribute of Rs. 1,040 to the British Government. The population increased from 52,674 in 1891 to 60,432 in 1901, distributed in 293 villages, and the density is 151 persons per square mile. All but 179 of the inhabitants are Hindus. The most numerous castes are Chāsas (17,000) and Pāns (10,000). Tālcher village is connected by fair-weather roads with Pāl Laharā and Angul, and is an important mart. The State maintains a middle vernacular school, 2 upper primary and 61 lower primary schools, and a charitable dispensary.

Talegaon.—Town in the Chāndūr *tāluk* of Amraotī District, Berār, situated in 20° 41′ N. and 78° 8′ E. Population (1901), 6,220. It was formerly the head-quarters of the present Chāndūr *tāluk*, but the *tahsīldār's* courthouse was removed to Chāndūr on the Great Indian Peninsula Railway. The town is known, to distinguish it from other towns and villages of the same name, as Talegaon-Dashasahasra (*vulgo*, Dashāsar), or 'Talegaon of the ten thousand.' The story goes that the wife of the *jāgīrdār* and the wife of a wealthy merchant entered into competition in the weekly market for a fine pumpkin. The contest between wealth and dignity ended in the vegetable being knocked down to the merchant's wife for ten thousand rupees. But a more

credible legend connects the epithet with the former population of the town.

Talegaon-Dābhāde.—Town in the Māval *tāluka* of Poona District, Bombay, situated in 18° 43′ N. and 73° 41′ E., 20 miles north-west of Poona city, on the south-east branch of the Great Indian Peninsula Railway. Population (1901), 5,238. Talegaon takes its second name from the family of Dābhāde, its hereditary *pātels*, who played a foremost part in the Marāthā conquest of Gujarāt during the first part of the eighteenth century. The most distinguished member, Khande Rao Dābhāde, was appointed Senāpati, or commander-in-chief, in 1716. The present representative ranks as a first-class Sardār in the Deccan. Talegaon was the farthest point reached by the British force sent from Bombay in 1779 to restore Raghunāth Rao to Poona as Peshwā. Finding the town burnt before them and being surrounded by a Marāthā army, they threw their guns into the large tank, retreated by night to WADGAON, three miles farther west, and there agreed to a humiliating capitulation. In 1817, five days after the battle of Kirkee, two British officers, brothers of the name of Vaughan, while on their way from Bombay to Poona, were seized and hanged here by the roadside. Their graves are 20 yards off the road. The municipality was established in 1866, and had an average income during the decade ending 1901 of Rs. 7,100. In 1903–4 the income was Rs. 6,800. The large tank to the west of the town provides an ample supply of drinking-water. The town contains a dispensary, three boys' schools with 190 pupils, and one girls' school with 132. Two schools are maintained by the local branch of the Methodist Episcopal Mission.

['The Bakhar of the Dābhādes,' *Times of India*, February 2, 1907.]

Talegaon-Dhamdhere.—Village in the Sirūr *tāluka* of Poona District, Bombay, situated in 18° 40′ N. and 74° 9′ E., 20 miles north-east of Poona city. Population (1901), 6,468. The Marāthā family of Dhamdhere has long held the foremost place in Talegaon, and its name is given to the town to distinguish it from TALEGAON-DĀBHĀDE in the Māval *tāluka* of Poona District. A weekly market is held on Mondays. The annual fair in February–March is attended by about 3,000 people, to visit the shrine of Nāthā, a saint who lived in Sivaji's time. The village possesses many temples, a dispensary, and 4 schools with 162 boys and 9 girls. A branch of the Salvation Army is stationed here.

Tālgrām ('village of tanks').—Town in the Chhibrāmau *tahsīl* of Farrukhābād District, United Provinces, situated in 27° 2′ N. and 79° 39′ E., 24 miles south of Fatehgarh. Population (1901), 5,457. Tālgrām was the chief town of a *pargana* under Akbar, and from annexation to 1844 it was the head-quarters of a *tahsīl*. It is administered under Act XX of 1856, with an income of Rs. 600. Trade is local. There are two schools with 150 pupils.

Tālikotā.—Town in the Muddebihāl *tāluka* of Bijāpur District, Bombay, situated in 16° 28′ N. and 76° 19′ E. Population (1901), 6,610. There is a local industry in superior carpets or *jājams*. The celebrated battle of Tālikotā was fought on the right bank of the Kistna, about 30 miles south of the town, on January 23, 1565, in which the power of the Hindu empire of Vijayanagar was destroyed by a confederacy of the Musalmān Sultāns of the Deccan. The battle was named after Tālikotā, as it was the place from which the allies marched to meet the Vijayanagar army. About 1750 the third Peshwā gave the town as a *saranjām* estate to his wife's brother, Rāstia, who built the markets called Anandrao and Kailās Pyati. On the fall of the Peshwā in 1818, Rāstia made Tālikotā his head-quarters and built the present mansion, two mosques, and a temple of Siva. The Jāma Masjid is a ruined building with Jain pillars. A modern mosque is called Panch Pīr, as it contains five tombs said to belong to five officers of the Delhi army. The tombs are venerated by both Hindus and Musalmāns, the Hindus referring them to the Pāndavas, probably on account of their number. The temple of Siva is old, and contains a *lingam* and some Jain images. Slates are found in the bed of the river.

Taliparamba.—Town in the Chirakkal *tāluk* of Malabar District, Madras, situated in 12° 3′ N. and 75° 22′ E. Population (1901), 7,849. It contains a sub-magistrate's and District Munsif's court, and a brass-roofed temple which is one of the best in the District.

Taloda Tāluka.—*Tāluka* of West Khāndesh District, Bombay, lying between 21° 30′ and 22° 2′ N. and 73° 58′ and 74° 32′ E., with an area of 1,177 square miles. It contains one town, TALODA (population, 6,592), the head-quarters; and 193 villages. The population in 1901 was 33,881, compared with 56,775 in 1891. The decrease is due to emigration to neighbouring States, scarcity of water, and the prevalence of a virulent type of cholera during the last famine. This is one of the most thinly populated *tālukas* in the District, with a density of only 29 persons per square mile, the District average being 142. The demand in 1903–4 for land revenue was 1·1 lakhs, and for cesses Rs. 8,000. Taloda includes six petty Mehwās estates, and is situated in the extreme north-west of the District. The most striking natural feature is the bold outline of the towering Sātpurās stretching from east to west, with a belt of thick forest infested by wild beasts along their foot. The prevailing soil is rich black loam. Where the land is tilled and open, the climate is not unhealthy; but in the villages along the base of the Sātpurās and in the west it is extremely malarious, and, except during April and May, unsafe for Europeans. The annual rainfall averages about 30 inches.

Taloda Town.—Head-quarters of the Taloda *tāluka* of West Khāndesh District, Bombay, situated in 21° 34′ N. and 74° 13′ E., 62 miles

north-west of Dhūlia. Population (1901), 6,592. Taloda is the chief timber market of Khāndesh, and has also a considerable trade in *rosha* grass (*Andropogon schoenanthus*), oil, and grain. The best wooden carts of Khāndesh are manufactured here, costing about Rs. 40 each. The town, which was constituted a municipality in 1867, had an average income during the decade ending 1901 of Rs. 5,000. In 1903-4 the income was Rs. 5,400. The town contains a dispensary, and a boys' school with 180 pupils.

Talsāna.—Petty State in KĀTHIĀWĀR, Bombay.

Tamadaw.—Western township of Shwebo District, Upper Burma, on the Upper Chindwin border, lying between 22° 46′ and 23° 8′ N. and 94° 50′ and 95° 23′ E., with an area of 598 square miles. It consists for the most part of broken country with low hills. The population was 13,845 in 1891, and 19,634 in 1901, distributed in 145 villages, Tamadaw (population, 199), a village in the east, being the head-quarters. The area cultivated in 1903-4 was 55 square miles, and the land revenue and *thathameda* amounted to Rs. 48,700.

Tāmbraparni.—River in Tinnevelly District, Madras. The derivation of the name has been much discussed. One etymology is from the Sanskrit *tāmra*, 'copper,' and *varna*, 'colour,' from the colour of the sand in its bed. It rises on the slopes of the peak Agastyamalai in the Western Ghāts, in 8° 37′ N. and 77° 15′ E., and after a course of some miles through this range descends to the plains in five beautiful falls at Pāpanāsam, a very sacred spot. Higher up, in the heart of the hills, it forms another fall called the Bāna-tīrtham, which is equally sacred but, being with difficulty accessible, is less frequented. From Pāpanāsam it runs eastward across Tinnevelly District, receiving a number of tributaries which, like itself, rise in the Ghāts. The chief of these is the Chittār, 45 miles long. It eventually falls into the Gulf of Manaar in 8° 40′ N. and 78° 9′ E., after a course of 70 miles, during which it drains 1,739 square miles.

The Tāmbraparni receives a supply from both monsoons, and is thus almost a perennial stream and of great use for irrigation. Eight dams cross it. Seven of these were made by former native governments and are believed to date from the fifteenth century. The eighth and lowest, at Srīvaikuntam, was suggested by Mr. Puckle, a former Collector, and was begun in 1867. It is 1,380 feet long, and feeds channels on both banks of the river, filling a large series of tanks in which the supply was formerly precarious, and also watering other land directly. The irrigation revenue has by this means been raised from Rs. 80,000 to over 2 lakhs, which gives a return of over 6 per cent. on the capital of 15 lakhs laid out on the system. The Marudūr dam, higher up the stream, irrigates on an average 30,000 acres of first and second crop, and the other six water 71,000 acres between them.

One-tenth of all the irrigable area in Tinnevelly depends upon the Tāmbraparni. Its valley is the wealthiest portion of the District, and the land there is some of the most valuable in the Presidency.

Several of the chief towns of the District stand upon the banks of the Tāmbraparni. Five miles below Pāpanāsam are Ambāsamudram and Kallidaikurichi, opposite one another and connected by a bridge built by public subscription in 1840; 20 miles farther down Tinnevelly and Pālamcottah are similarly connected by the Sulochana bridge, built in 1844 by Sulochana Mudaliyār, a rich landowner and high official of the District; and there is a third bridge over the Srīvaikuntam dam. Near the mouth of the river is Kolkai, the first capital of the Pāndyas, the earliest seat of Dravidian civilization, and once a famous seaport. The silt from the river ruined its career as a port and it is now five miles from the sea; its place was taken by Kāyal, where Marco Polo landed, but this also silted up and the Portuguese then established Tuticorin as the chief port on this coast. The pearl and 'chank' (*Turbinella rapa*) fisheries off the mouth of the Tāmbraparni were once very famous, being frequently mentioned in early Tamil literature.

Tamkūhī.—Estate situated in the Bastī and Gorakhpur Districts of the United Provinces, and in the Muzaffarpur, Darbhanga, Sāran, and Gayā Districts of Bengal, comprising 253 villages. The income is about 2·8 lakhs, and the land revenue and cesses payable to Government 1·4 lakhs. The owners are Bhuinhārs, claiming descent from a Rājput who married a Bhuinhārin. The founder of the family was Fateh Sāhī, Rājā of Hathwā in Sarān District, who resisted the British after the battle of Buxar in 1764, and was forced to take refuge in the jungles on the bank of the Great Gandak in Gorakhpur, where he had another estate, then included in the dominions of the Nawāb of Oudh. He acquired a large property, which was mostly dissipated by his sons. About 1830–40 a grandson recovered part of the ancestral estate, and settled at Salemgarh in Gorakhpur District, founding a separate family. Another grandson retained Tamkūhī and greatly increased his estates. He obtained the title of Rājā, which is hereditary. The present Rājā, Indrajīt Pratāp Bahādur Sāhī, was born in 1893, and the estate is now under the management of the Court of Wards.

Tamlūk Subdivision.—Eastern subdivision of Midnapore District, Bengal, lying between 21° 54′ and 22° 31′ N. and 87° 38′ and 88° 11′ E., with an area of 653 square miles. The subdivision is a fertile tract, stretching along the estuary of the Hooghly, and producing rich crops of rice. The population in 1901 was 583,238, compared with 534,958 in 1891, the density being 893 persons per square mile. This is the most crowded part of the District. It contains one town, Tamlūk (population, 8,085), the head-quarters; and 1,578 villages, of which the most important is Geonkhāli, a considerable centre of trade.

Tamlūk Town.—Head-quarters of the subdivision of the same name in Midnapore District, Bengal, situated in 22° 18′ N. and 87° 56′ E. The population in 1901 was 8,085, compared with only 5,849 in 1872. Tamlūk or Tāmralipta, as it is called in Sanskrit, was the capital of an ancient kingdom known as Tāmralipta or Suhmā. The earliest kings belonged to the Peacock dynasty and were Rājputs by caste; but on the death of Nisanka Nārāyan of this line, the throne was usurped by Kālu Bhuiyā, the founder of the existing line of Kaibartta Rājās. Tamlūk figures as a place of great antiquity in the sacred writings of the Hindus. It first emerges in authentic history as a port, being the place whence the Chinese pilgrim Fa Hian took ship to Ceylon in the early part of the fifth century. Another celebrated pilgrim from China, Hiuen Tsiang, speaks of Tamlūk in the seventh century as still an important harbour, with ten Buddhist monasteries, 1,000 monks, and a pillar erected by king Asoka, 200 feet high. Indigo, silk, and copper (*tāmra*), the last of which gave its name to the place, were the traditional articles of export from ancient Tamlūk. Hiuen Tsiang found the city washed by the ocean; the earliest Hindu tradition places the sea 8 miles off, and it is now fully 60 miles distant. The process of land-making at the mouth of the Hooghly has gone on slowly but steadily, and has left Tamlūk an inland village on the banks of the Rūpnārāyan river. Under the rule of the ancient Peacock dynasty, the royal palace and grounds are said to have covered an area of 8 square miles, fortified by strong walls and deep ditches. No trace of the ancient palace is now discernible, except some ruins to the west of the palace of the present Kaibartta Rājā, which is built on the side of the river, surrounded by ditches, and covers the more moderate area of about 30 acres. The old city lies under the river silt; even the great temple is now partly underground, and the remains of masonry wells and houses are met with at 18 to 21 feet below the surface. A considerable number of old silver and copper coins bearing Buddhist symbols have recently been discovered in the midst of débris from the crumbling banks of the Rūpnārāyan. The principal object of interest at Tamlūk is a temple sacred to the goddess Bargā Bhīma, or Kālī, situated on the bank of the Rūpnārāyan. The skill and ingenuity displayed in its construction still command admiration. The shrine is surrounded by a curious threefold wall which rises to a height of 60 feet, its width at the base being 9 feet. The whole is covered with a dome-shaped roof. Stones of enormous size were used in its construction. On the top of the temple, although dedicated to the wife of Siva, is the sacred disk (*chakra*) of Vishnu, surmounted by the form of a peacock. The idol is formed from a single block of stone with the hands and feet attached to it. The goddess is represented standing on the body of Siva and has four hands. Outside the

temple, but within its enclosure, is a *keli-kadamba* tree, supposed to have the virtue of redeeming wives from barrenness. Numbers of women flock hither to pray for offspring, suspending pieces of brick to the tree by ropes made of their own hair. There is also a Vaishnav temple at Tamlūk which, in shape and construction, resembles that of Bargā Bhīma.

Tamlūk is still a place of considerable importance as the centre of the boat traffic on the Rūpnārāyan. It was constituted a municipality in 1864. The income during the decade ending 1901-2 averaged Rs. 7,900, and the expenditure Rs. 7,200. In 1903-4 the income was Rs. 9,000, of which Rs. 3,000 was derived from a tax on persons (or property tax); and the expenditure was Rs. 8,000. The town contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

[Sir W. W. Hunter, *Orissa*, vol. i (1872), and *Statistical Account of Bengal*, vol. iii (1876).]

Tāmralipta (or Suhmā).—Ancient kingdom of Bengal, comprising the modern Districts of Midnapore and Howrah. The earliest rulers belonged to the Peacock dynasty of Rājputs, who were supplanted by Kaibarttas. The capital was at TAMLŪK, a famous port of ancient times and a great stronghold of Buddhism.

Tāmrapurni.—River in Tinnevelly District, Madras. *See* TĀMBRAPARNI.

Tamu.—Township in the Upper Chindwin District of Upper Burma, lying between 23° 35′ and 24° 20′ N. and 94° 1′ and 94° 33′ E., with an area of 960 square miles. The population was 4,426 in 1891, and 5,264 in 1901, made up of Burmans, Shans, and Chins in the proportions of 33, 9, and 7, and inhabiting 48 villages. Tamu (population, 905), in the north of the valley, is the head-quarters. The inhabited area lies mostly along the valleys of the Khampat and Yu streams, both of which rise in the mountains of Manipur, and flow, one in a northerly, the other in a southerly direction, to meet and run eastwards into the Chindwin. The area cultivated in 1903-4 was 16 square miles, and the land revenue and *thathameda* amounted to Rs. 14,000.

Tanakpur.—Trading centre in the Champāwat *tahsil* of Almorā District, United Provinces, situated in 29° 4′ N. and 80° 7′ E., at the foot of the Himālayas, near the Sārdā river. A railway from Tanakpur to Pīlībhīt is under consideration. Population (1901), 692. The village was founded in 1880, when the older mart of Barmdeo was washed away by floods. This is now one of the most important places at which the traders from Tibet meet the merchants of the plains. Borax and wool are brought down by the Bhotiās, who carry back sugar and cloth. There is also a large trade with the hill tracts of

Almorā District and Nepāl, from which turmeric, chillies, and *ghī* are exported, while sugar and salt are imported. Tanakpur is situated in the Bhābar; and the timber, catechu, hides, honey, and minor forest produce of that tract are collected here for sale. The trading season lasts only from November to May, and by the middle of June the place is deserted. The bazar contains a large and increasing number of stone houses and shops, while huts are erected annually by the smaller traders. Tanakpur is the winter head-quarters of a subdivisional officer.

Tanāwal (*Tanāwal*).—A tract of mountainous territory in the extreme north-west corner of Hazāra District, North-West Frontier Province, lying on the east of the Indus, between 34° 15′ and 34° 23′ N. and 72° 52′ and 73° 10′ E. The Siran river flows through it from north to south. In the latter part of Akbar's reign Tanāwal was overrun by the Yūsufzai Pathāns, and it is still partly peopled by Afghāns; but it became nominally a dependency of Kashmīr under the Durrānis. Its real rulers, however, were the Tanāwalis, a tribe of Mughal descent divided into two septs, the Pul-āl and Hando-āl or Hind-wāl. The former held the tract east of the Siran; and its chief founded Bīr when the Mughal power was decaying, but internal dissensions led to the intervention of the governor of Kashmīr. Meanwhile, the Hind-wāl sept had gained power and its chief, Nawāb Khān, defied the Durrānis, but met his death at the hands of Sardār Azim Khān in 1818. His son, Painda Khān, played a considerable part in the history of his time and vigorously opposed the Sikhs, but lost all his territory except the tract round Amb. On his death in 1840 his son, Jahāndād Khān, recovered part of it through the favour of Gulāb Singh of Kashmīr and the British Government. Thus the present semi-independent estate comprises the territory formerly held by the Hind-wāl Tanāwalis. It has an area of 204 square miles, with a population (1901) of 31,622. It is bounded on the north by the Black Mountain, on the west by the Indus, on the south by the Harīpur and Abbottābād *tahsīls*, and on the east by the Mānsehra *tahsīl* of Hazāra District. It belongs partly to Nawāb Sir Muhammad Akram Khān, K.C.S.I., chief of Amb, and partly to Atā Muhammad Khān, Khān of Phulra. Since the annexation of Hazāra, the administration of Tanāwal has been practically in the hands of these chiefs, their authority being legally defined by Regulation II of 1900, by which civil, criminal, and revenue administration is vested in them, the only exceptions being offences against the state and murder. Both the chief of Amb and the Khān of Phulra are Tanāwalis of the Hind-wāl section, the former being a grandson of Painda Khān, and the latter a great-grandson of Madad Khān, younger brother of Painda Khān.

The title of Nawāb was bestowed on Muhammad Akram Khān in

1868, partly as a reward for his father's services during the Mutiny, and partly in recognition of his personal courage and loyalty in the Hazāra expedition of 1868. At the same time he received a cash allowance of Rs. 500 a month, which he has enjoyed ever since. In 1871 he became a C.S.I., and in 1889 a K.C.S.I. He also enjoys a *jāgīr* of the annual value of Rs. 9,000 in the Harīpur *tahsīl* of Hazāra District. Amb, the place from which he takes his title, is situated on the western bank of the Indus, in his independent territory, and is a winter residence, his summer head-quarters being at Shergarh near the eastern extremity of Upper Tanāwal.

Tāndā Tahsīl.—North-eastern *tahsīl* of Fyzābād District, United Provinces, comprising the *parganas* of Tāndā and Birhar, and lying along the Gumtī, between 26° 9′ and 26° 40′ N. and 82° 27′ and 83° 8′ E., with an area of 365 square miles. Up to 1904 the *tahsīl* also included *pargana* Surhurpur, area 144 square miles. The population of the former area decreased from 369,781 in 1891 to 350,342 in 1901, and that of the present area according to the Census of 1901 is 249,412. There are now 735 villages and three towns, including Tāndā (population, 19,853), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 4,24,000, and for cesses Rs. 68,000, decreased by the transfer of Surhurpur to Rs. 2,97,000 and Rs. 47,000 respectively. The *tahsīl*, as reduced, supports 684 persons per square mile, or somewhat below the District average. There are a few small alluvial tracts along the Gogra, but most of the *tahsīl* lies in the uplands, consisting of two distinct portions. A strip above the river lies high and is well cultivated and fertile, but it slopes into a tract of marshy land which is badly drained and easily becomes waterlogged. Of the old area, 330 square miles were under cultivation in 1903–4, of which 189 were irrigated. Wells are a more important source of supply than *jhīls* or swamps.

Tāndā Town (1).—Head-quarters of the *tahsīl* of the same name in Fyzābād District, United Provinces, situated in 26° 34′ N. and 82° 40′ E., on the bank of the Gogra, and 12 miles by road from Akbarpur station on the Oudh and Rohilkhand Railway. Population (1901), 19,853. The town was granted by the emperor Farrukh Siyar to one Muhammad Hayāt and rapidly rose in importance. At the close of the eighteenth century Saādat Alī Khān, Nawāb of Oudh, was interested in its prosperity and established a number of officials here. It became one of the most noted weaving centres in India, producing muslins which rivalled those of Dacca. European merchants settled in the place and introduced new methods and improved patterns. The trade suffered during the American Civil War, but has since recovered. Tāndā contains the usual offices, and also a branch of the Wesleyan Methodist Mission and a dispensary. It has been administered as a municipality,

together with the adjacent town of Mubārakpur, since 1865. During the ten years ending 1901 the income and expenditure averaged Rs. 8,000. In 1903–4 the income was Rs. 16,000, chiefly derived from a tax on circumstances and property (Rs. 8,400) and a grant from Government of Rs. 3,500, while the expenditure was also Rs. 16,000. There are more than 1,100 looms in the town, and a number of dyeing and printing houses. Various kinds of cotton cloth are produced, including some woven from dyed yarn, while the cloth used for printing is imported. The fine flowered muslin called *jāmdāni*, for which the place was famous, is still made by a few weavers, but the market is very limited. Some of the best varieties are partly woven with silk or silver wire. There are three schools with 227 pupils.

Tanda Town (or Tānrā) (2).—Ancient town in Mālda District, Eastern Bengal and Assam, the capital of Bengal after the decadence of Gaur. Its history is obscure, and the very site of the city has not been accurately determined. It is certain that it was in the immediate neighbourhood of Gaur, and south-west of that place, beyond the Bhāgīrathi. Old Tanda has been utterly swept away by the changes in the course of the Pāgla. The land which subsequently re-formed at or near the old site is known by the same name, and is recorded in the District records as Tanda or Tānrā. According to Stewart (*History of Bengal*, ed. 1847, p. 95), Sulaimān Shāh Kararānī, the last but two of the Afghān kings of Bengal, moved the seat of government to Tanda in 1564, eleven years before the final depopulation of Gaur. Though never a populous city, Tanda was a favourite residence for the Mughal governors of Bengal until the middle of the following century. In 1660 Shāh Shujā, when hard pressed by Mīr Jumla, Aurangzeb's general, retreated from Rājmahāl to Tanda, in the vicinity of which town was fought the decisive battle in which the former was finally routed. After this date Tanda is not mentioned in history, and it was subsequently deserted by the Mughal governors in favour of Rājmahāl and Dacca.

Tāndā Town (or Tāndā Badrīdān) (3).—Town in the Suār *tahsīl* of the State of Rāmpur, United Provinces, situated in 28° 58′ N. and 78° 57′ E., on the road from Morādābād to Nainī Tāl. Population (1901), 7,983. The place, as its name implies, was originally an encampment of Banjārās or grain-carriers, who still form the chief inhabitants. They purchase unhusked rice in the Kumaun hills and in the TARAI, and carry it to Tāndā on ponies. There it is husked by women and sent to the Morādābād railway station. Tāndā contains dispensaries for medical treatment by both European and indigenous methods, and a *tahsīlī* school. It is also the head-quarters of a subdivision of the Suār *tahsīl*.

Tānda-Urmar.—The two towns of Tānda and Urmar are situated

within a mile of one another in the Dasūya *tahsīl* of Hoshiārpur District, Punjab, in 31° 40′ N. and 75° 38′ E., and form with their suburbs a single municipality. Their joint population was, in 1901, 10,247. The suburbs contain a shrine of the saint, Sakhi Sarwar. They form an entrepôt for country produce and cotton goods, and good pottery is made. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 5,400. In 1903–4 the income was Rs. 5,800, chiefly derived from octroi; and the expenditure was Rs. 5,400. The municipality maintains an Anglo-vernacular middle school and a Government dispensary.

Tando.—Subdivision of Hyderābād District, Sind, Bombay, composed of the Guni, Badin, Tando Bago, and Dero Mohbat *tālukas*.

Tando Adam (or Adam-jo-Tando).—Town in the Tando Alāhyār *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 46′ N. and 68° 42′ E., on the North-Western Railway. It was founded about 1800 by one Adam Khān Marri, whence its name. Population (1901), 8,664. There is some trade in silk, cotton, grain, oil, sugar, and *ghī*. The municipality, established in 1860, had an average income of about Rs. 15,000 during the decade ending 1901. In 1903–4 the income was also Rs. 15,000. Tando Adam contains three cotton-ginning and pressing factories employing 636 operatives, a courthouse, five schools, one of which is for girls, and a dispensary.

Tando Alāhyār Tāluka.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 25° 7′ and 25° 49′ N. and 68° 35′ and 69° 2′ E., with an area of 690 square miles. The population in 1901 was 87,990, compared with 76,385 in 1891. The density, 128 persons per square mile, exceeds the District average. There are 3 towns—Tando Alāhyār (population, 4,324), the head-quarters, Tando Adam (8,664), and Nasarpur (4,511); and 107 villages. The land revenue and cesses in 1903–4 amounted to nearly 1½ lakhs. The *tāluka* consists of a high plateau, of irregular oblong shape, with wide sandy spaces in the east. The chief crops are *bājra*, sesamum, and tobacco.

Tando Alāhyār Town (or Alāhyār-jo-Tando).—Head-quarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, situated in 25° 27′ N. and 68° 46′ E., on the Hyderābād-Balotra branch of the Jodhpur-Bīkaner Railway. Population (1901), 4,324. The local trade includes sugar, ivory, silk, cloth, cotton, oil, and grain. It was founded about 1790 by a son of the first sovereign of the Tālpur dynasty. Under the Tālpurs, the town attained considerable commercial importance; but it has declined in modern times, especially since the opening of the railway line in 1861 between Kotri and Karāchi, which diverted the trade of northern Sind. Cotton is extensively grown in the neighbourhood, while raw silk, metal pots, and ivory are largely imported; silk-weaving and ivory-work form the chief industries. The

principal building is the fort. The municipality, established in 1856, had an average income during the decade ending 1901 of about Rs. 15,000. The income in 1903–4 was also Rs. 15,000. There are four schools, of which one is for girls, one cotton-ginning and pressing factory employing 140 operatives, and a dispensary.

Tando Bāgo.—*Tāluka* in Hyderābād District, Sind, Bombay, lying between 24° 35′ and 25° 2′ N. and 68° 46′ and 69° 22′ E., with an area of 697 square miles. The population in 1901 was 74,876, compared with 63,627 in 1891. The number of villages is 141, of which Tando Bāgo is the head-quarters. The density, 107 persons per square mile, is a little below the District average. The land revenue and cesses in 1903–4 amounted to about 2 lakhs. The *tāluka* is a low-lying and well-watered alluvial plain, apt to suffer from floods rather than from drought. Most of the irrigation is from canals, and the chief crops are rice, cotton, sugar-cane, wheat, and barley.

Tando Masti Khān.—Town in the State of Khairpur, Sind, Bombay, situated in 27° 26′ N. and 68° 42′ E., about 13 miles south of Khairpur town, on the North-Western Railway. The main road from Hyderābād to Rohri runs through the town. Population (1901), 6,465. The town was founded about 1803 by Wadero Masti Khān. To the south are the ruins of Kotesar, supposed to have been once a populous place. On the western side are the shrines of Shāh Jaro Pīr Fazl Nango and Shaikh Makai.

Tando Muhammad Khān.—Head-quarters of the Guni *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 8′ N. and 68° 35′ E., on the right bank of the Fuleli canal, 21 miles south of Hyderābād city. Population (1901), 4,635. As the seat of an Assistant Collector, the town contains a courthouse and the usual public buildings. The municipality, established in 1856, had an average income during the decade ending 1901 of about Rs. 18,000. In 1903–4 the income was Rs. 12,500. The local trade includes rice and other grain, silk, metals, tobacco, dyes, saddle-cloths, matting, and drugs; and there is a transit trade in rice, *jowār*, *bājra*, and tobacco. The manufactures comprise copper- and iron-ware, earthenware, silk, thread, blankets, cotton cloth, shoes, country liquor, and articles of wood. Tando Muhammad Khān is said to have been founded by Mīr Muhammad Tālpur Shāhwāni, who died in 1813. The town contains a dispensary and three schools, of which one is for girls.

Tāndūr.—Head-quarters of the *jāgīr tāluk* of the same name in the Kodangal *tāluk* of Gulbarga District, Hyderābād State, situated in 17° 15′ N. and 77° 34′ E., on the Nizām's State Railway. Population (1901), 5,930. The Kāgnā river flows one mile south of the town.

Tangail Subdivision.—South-western subdivision of Mymensingh District, Eastern Bengal and Assam, lying between 23° 57′ and 24° 48′

N. and 89° 40′ and 90° 14′ E., with an area of 1,061 square miles. The population in 1901 was 970,239, compared with 859,475 in 1891. Except on the east, which contains part of the MADHUPUR jungle, the subdivision is an alluvial tract, subject to annual inundations and deposits of fertilizing silt from the Brahmaputra with its affluents and offshoots. It contains one town, TANGAIL (population, 16,666), the head-quarters, and 2,030 villages, and is the most densely populated part of the District, supporting 914 persons per square mile, against an average of 618 for the whole District. There is an important market at SUBARNAKHĀLI, and the terminus of the railway at JAGANNĀTHGANJ falls within the subdivision.

Tangail Town.—Head-quarters of the subdivision of the same name in Mymensingh District, Eastern Bengal and Assam, situated in 24° 15′ N. and 89° 57′ E., on the Lohajang, a branch of the Jamunā. Population (1901), 16,666. It is the centre of a considerable trade, especially in European piece-goods. Tangail was constituted a municipality in 1887. The income during the decade ending 1901–2 averaged Rs. 7,400, and the expenditure Rs. 6,800. In 1903–4 the income was Rs. 10,000, mainly derived from a property tax and conservancy rate; and the expenditure was Rs. 9,000. The town contains the usual public offices; the sub-jail has accommodation for 18 prisoners. The chief educational institution is the Pramatha Manmatha College with 98 students on its rolls at the end of 1904; it was established in 1900, and is maintained, at an annual cost of Rs. 5,000, at the expense of its founder. It is affiliated to the Calcutta University and teaches up to the F.A. standard.

Tangasseri.—British village within the limits of the State of Travancore, situated in 8° 54′ N. and 76° 35′ E., adjoining Quilon. Until 1906 it was administered as part of the Cochin *tāluk* of Malabar District, Madras; but in that year it was transferred to the newly formed District of ANJENGO, and placed under the administrative control of the Resident in Travancore and Cochin. Total area, about 99 acres; population (1901), 1,733. It was formerly a Portuguese and a Dutch settlement, and the inhabitants are mostly Roman Catholics. The collection of customs, port dues, and other revenues in the place is farmed out to the Travancore Darbār. Civil jurisdiction over it still belongs to the District Munsif's court at Anjengo, under the District Court of South Malabar. The place has a resident sub-magistrate. A lighthouse stands on the seashore, with a light visible for 18 miles.

Tangi.—Town in the Chārsadda *tahsīl* of Peshāwar District, North-West Frontier Province, situated in 34° 17′ N. and 71° 42′ E., 29 miles north of Peshāwar city. Population (1901), 9,095. The Swāt river runs west of the town, and the Swāt River Canal, with the famous

Jhindi aqueduct, is about 3 miles off. The inhabitants are Muhammadzai Pathāns. Faction is rife, and the place owes its importance to its proximity to the independent tribe of Utman Khel, against whom it has always held its own.

Tanglū.—One of the principal peaks in the Singālilā spur of the Himālayas, in the head-quarters subdivision of Darjeeling District, Bengal, situated in 27° 2′ N. and 88° 5′ E., at a height above sea-level of 10,074 feet. The Nepāl frontier road runs over the hill, and there is a staging bungalow for travellers, available on application to the Deputy-Commissioner of Darjeeling. The Little Rangīt river rises under this mountain.

Tanjore District (*Tanjāvūr*).—A coast District in the south of the Madras Presidency, lying between 9° 49′ and 11° 25′ N. and 78° 47′ and 79° 52′ E., with an area of 3,710 square miles. On the north the river Coleroon separates it from Trichinopoly and South Arcot Districts; on the west it is bounded by the State of Pudukkottai and Trichinopoly District; and on the south by the District of Madura. Its sea-board is made up of two sections, one extending 72 miles from the mouth of the Coleroon to Point Calimere in the south, and the other bordering the Palk Strait for 68 miles from Point Calimere to Madura District in the south-west. The small French Settlement of Kārikāl is situated about the middle of the former of these sections.

Physical aspects.

The northern and eastern portions of Tanjore form the delta of the river Cauvery, which, with its numerous branches, intersects and irrigates more than half the District. This tract comprises the whole of the *tāluks* of Kumbakonam, Māyavaram, Shiyāli, and Nannilam, and parts of Tanjore, Mannārgudi, Tirutturaippūndi, and Negapatam. It is the best irrigated, and consequently the most densely populated and perhaps the richest, area in the Presidency. The southern portion of the District stands about 50 feet higher, and is a dry tract of country comprising the whole of the Pattukkottai *tāluk*, the southern portion of Tanjore, and the west of Mannārgudi.

The delta is a level alluvial plain, covered, almost without a break, by rice-fields and sloping gently towards the sea. The villages, which are usually half hidden by coco-nut palms, stand on cramped sites but little above the level of the surrounding cultivation, like low islands in a sea of waving crops. It is devoid of forests, and has no natural eminences save the ridges and dunes of blown sand which fringe the sea-coast. These ridges are neither wide nor high, for the south-west monsoon is strong enough to counteract the work done by the north-east winds, which would otherwise gradually spread the hillocks far inland; and the heavy rainfall on the coast during the latter monsoon saturates the sand and prevents it from being carried as far as would

otherwise be the case. Some protection is also afforded by a belt of screw-pine jungle which runs between the sand ridges and the arable land along a great part of the coast-line. The southern sea-board of the Tirutturaippūndi *tāluk*, west of Point Calimere, is an extensive salt swamp several miles wide and usually covered with water.

The non-deltaic portion of the District is likewise an open plain which slopes to the east and is also destitute of hills. A small part of it lying to the south and south-west of Tanjore city rises, however, somewhat above the surrounding level and forms the little plateau of Vallam. This is the pleasantest part of the District, and here, seven miles from Tanjore city, the Collector's official residence is situated.

Except the Coleroon and the branches of the Cauvery, the District contains no rivers worthy of particular mention; but a few insignificant streams cross the Pattukkottai *tāluk*. The irrigation from the two former rivers is noticed in the section on Irrigation below.

Unfossiliferous conglomerates and sandstones occupy a large part of the District to the south and south-west of Tanjore, where they lie, when their base is visible, on an irregular surface of gneiss. Above them are disposed, in a series of flat terraces, lateritic conglomerates, gravels, and sands, which gradually sink below the alluvium. All the northern and eastern tracts are composed of river, deltaic, and shore alluvium, and blown sands.

The crops of the District are briefly described below. Its trees present few remarkable features. Bamboos and coco-nut palms are plentiful in the delta, palmyras and the Alexandrian laurel on the coast, tamarind, jack, and *nīm* in the uplands of the south, while the *iluppai* (*Bassia longifolia*) and the banyan and other figs are common elsewhere. There is, however, a general deficiency of timber and fire-wood, which in consequence are largely imported.

The larger fauna of Tanjore present little of interest. Except in the scrub jungle near Point Calimere and in very small areas near Vallam, Shiyāli, and Madukkūr, where antelope, spotted deer, and wild hog are met with, there are no wild animals bigger than a jackal. Jackals and foxes are very common, and the ordinary game-birds are found in fair quantities. The rice-fields afford good snipe-shooting.

The climate of the District is healthy on the whole, though hot and relaxing in the delta. As the latter widens, the increased breadth of the irrigated land causes more rapid evaporation of the water with which it is covered, and hence the country is cooler towards the sea. The delta is naturally well drained, and does not therefore suffer in point of climate as much as might be expected from the wide extension of irrigation within it. The mean temperature at Negapatam on the coast of the deltaic tract is 80°. The neighbourhood of Vallam is the healthiest and the coolest part of the District, resembling the Pattu-

kkottai *tāluk* in dryness. The latter presents a contrast to the delta, inasmuch as the heat is less in the inland and greater in the sea-board tracts. The great exception to the general healthiness of the District is the swamp stretching west from Point Calimere. That promontory was at one time considered a sanitarium, but it is now said to be malarious from April to June.

The annual rainfall in the District as a whole reaches the comparatively high average of over 44 inches. It is lowest in Arantāngi (35 inches) and highest in Negapatam (54 inches). Tanjore city receives only 36 inches on an average. Most of the rain falls during the north-east monsoon, which strikes directly on the more northerly of the coast *tāluks*, and throughout these the rainfall is consequently higher than inland; but the south-west rains also reach as far as this District, and are occasionally heavier than those received from the north-east current.

The District has rarely suffered much from scarcity of rain, but serious losses from floods and hurricanes have been not infrequent. Of these disasters, the most serious was the flood in the Cauvery in 1853, which covered the delta with water and, though few lives were lost, did immense damage to property. A flood in 1859 fortunately did little harm, but in 1871 a hurricane caused much loss of life and property on land and sea. There have been several inundations in more recent times, but the regulators constructed across the branches of the Cauvery have now done much to minimize the effect of such calamities.

History.

Up to the middle of the tenth century the District formed part of the ancient CHOLA kingdom. During the reign of Rājārājā I (985–1011), perhaps the greatest of that dynasty, the Cholas reached the zenith of their power, their dominion at his death including almost the whole of the present Madras Presidency, together with Mysore and Coorg and the northern portion of Ceylon. Rājārājā had a well-equipped and efficient army, divided into regiments of cavalry, foot-soldiers, and archers. He carried out a careful survey of the land under cultivation and assessed it, and beautified Tanjore with public buildings, including its famous temple. During his time, if not earlier, the civil administration also became systematized. Each village, or group of villages, had an assembly of its own called the *mahāsabha* ('great assembly'), exercising, under the supervision of local officers, an almost sovereign authority in all rural affairs. These village groups were formed into districts under district officers, and the districts into provinces under viceroys. Six such provinces made up the Chola dominions. The kingdom which Rājārājā thus established and unified remained intact until long after his death. His immediate successors were, like him-

self, great warriors and good administrators. Tanjore owes to them the dam (called the Grand Anicut) separating the Cauvery from the Coleroon, the great bulwark of the fertility of the District, which is described below under Irrigation, and also the main channels depending upon it.

During the thirteenth century Tanjore passed, with most of the Chola possessions, under the rule of the Hoysala Ballālas of Dorasamudra and the Pāndyas of Madura. The District probably shared in the general subjection of the south to the Muhammadan successors of Malik Kāfūr's invasion till the close of the fourteenth century, when it became part of the Hindu kingdom of Vijayanagar, which was then rising into power. During the sixteenth century one of the generals of that kingdom declared himself independent, and in the early part of the seventeenth century a successor established a Naik dynasty at Tanjore. The kings of this dynasty built most of the forts and Vaishnav temples in the District. The tragic end of the last of the line forms the subject of a popular legend to this day. He was besieged by Chokkanātha, the Madura Naik, in 1662. Finding further defence hopeless, he blew up his palace and his *zanāna*, and with his son dashed out against the besiegers and fell in the thickest of the fight. An infant son of his, however, was saved, and the child's adherents sought aid from the Muhammadan king of Bijāpur. The latter deputed his general, Venkāji, half-brother of the celebrated Sivajī, to drive out the usurper and restore the infant Naik. This Venkājī effected; but shortly afterwards he usurped the throne himself, and founded (about 1674) a Marāthā dynasty which continued in power until the close of the eighteenth century. For seventy years his successors maintained a generally submissive attitude towards the Muhammadans, to whom they paid tribute occasionally, and engaged in conflict only with the rulers of Madura and Rāmnād.

The English first came in contact with Tanjore in 1749, when they espoused the cause of a rival to the throne and attacked Devikottai, which the Rājā eventually ceded to them. The Rājā joined the English and Muhammad Alī against the French, but on the whole took little part in the Carnatic Wars. The capital was besieged in 1749 and 1758, and parts of the country were occasionally ravaged. In 1773 the Rājā fell into arrears with his tribute to the Nawāb of Arcot, the ally of the English, and was also believed to be intriguing with Haidar Alī of Mysore and with the Marāthās for military aid. Tanjore was accordingly occupied by the English, as the Nawāb's allies, in 1773. The Rājā was, however, restored in 1776, and concluded a treaty with the Company, by which he became their ally and Tanjore a protected State. In October, 1799, shortly after his accession, Rājā Sarabhojī resigned his dominions into the hands of

the Company and received a suitable provision for his maintenance. Political relations continued unchanged during his lifetime, but he exercised sovereign authority only within the fort and its immediate vicinity, subject to the control of the British Government. He died in 1832 and was succeeded by his only son Sivajī, on whose death without heirs in 1855 the titular dignity became extinct, and the fort and city of Tanjore became British territory.

The present District of Tanjore is made up of the country thus obtained, and of three small settlements which have separate histories. These latter are: firstly, Devikottai and the adjoining territory, which had been previously acquired by the English Company from the Tanjore Rājā in 1749; secondly, the Dutch settlements of Negapatam and Nagore and the Nagore dependency, of which the first two were taken by the Dutch from the Portuguese in 1660 and annexed to the British dominions in 1781, and the third was ceded by the Rājā to the Company in 1776; and, lastly, Tranquebar, which the Danes had acquired from the Naik Rājā of Tanjore in 1620, and which they continued to hold on the payment of an annual tribute until 1845, when it was purchased by the Company.

The chief objects of archaeological interest in the District are its religious buildings. Numerous temples of various dates are scattered all over it. Those at Tiruvālūr, Alangudi, and Tiruppūndurutti are mentioned in the *Devāram*, and must therefore have been in existence as early as the seventh century A.D. Inscriptions in Old Tamil and Grantha characters occur in many of them. These refer mostly to the Chola period, and none has been found earlier than the tenth century. There are a few grants by Pāndya kings. The Mannārgudi and Tiruvadamarudūr temples contain inscriptions of the Hoysala kings and some Vijayanagar grants, and many records of the later Naiks and Marāthās exist. Of all the temples in the District perhaps the most remarkable is the great shrine at Tanjore, built by Rājārājā I, which is interesting alike to the epigraphist and to the student of architecture, being a striking monument of eleventh-century workmanship, and abounding in inscriptions of the time of its founder and his successors. It is noticed more fully in the article on TANJORE CITY. At Kumbakonam is an ancient temple dedicated to Brahmā, a deity to whom shrines are seldom erected. The Tiruvālūr temple is another remarkable building.

Population.

The density of population averages 605 persons per square mile, and the District is the most thickly populated in the Presidency. The *tāluks* of Kumbakonam, Negapatam, and Māyavaram, which consist of the rich and closely cultivated 'wet' lands of the delta, rank respectively fourth, fifth, and sixth in the Presidency in the density of their inhabitants to the square mile.

The population of the District was 1,973,731 in 1871; 2,130,383 in 1881; 2,228,114 in 1891; and 2,245,029 in 1901. In the decades ending 1891 and 1901 it increased less rapidly than that of any other District, owing chiefly to the very active emigration which took place to the Straits, Burma, and Ceylon. In Pattukkottai, the most sparsely peopled *tāluk*, the advance in the period ending 1901 was as high as 9 per cent.; but this is thought to have been due less to any extension of cultivation than to the temporary immigration of labourers for the construction of the railway extension from Muttupet to Arantāngi. Of the total population in 1901, Hindus numbered 2,034,399, or 91 per cent.; Musalmāns, 123,053, or 5 per cent.; and Christians, 86,979, or 4 per cent. These last have increased twice as rapidly as the population as a whole. The District contains eleven females to every ten males, a higher proportion than is found anywhere else except in Ganjām, which is largely due to emigrants leaving their women behind them. The prevailing vernacular everywhere is Tamil.

The number of towns and villages in the District is 2,529. The principal towns are the municipalities of KUMBAKONAM, TANJORE CITY (the administrative head-quarters), NEGAPATAM, MĀYAVARAM, and MANNĀRGUDI. Kumbakonam and Tanjore are growing more rapidly than other urban areas, the rate of increase of their population during the decade ending 1901 being respectively 10 and 6 per cent.; but in the same period the population of Negapatam declined. The District is divided into the nine *tāluks* of TANJORE, KUMBAKONAM, MĀYAVARAM, SHIYĀLI, NANNILAM, NEGAPATAM, MANNĀRGUDI, TIRUTTURAIPPŪNDI, and PATTUKKOTTAI, each of which is called after its head-quarters. Statistics of these, according to the Census of 1901, are subjoined:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Māyavaram	283	2	186	247,019	873	+ 0·9	26,208
Shiyāli	171	1	96	116,563	682	– 2·7	10,236
Kumbakonam	342	2	307	375,031	1,097	– 0·7	43,256
Negapatam	240	2	189	217,607	907	– 1·2	29,773
Nannilam	293	2	242	214,788	733	– 0·6	22,212
Tanjore	689	4	362	407,039	591	– 0·8	44,156
Mannārgudi	301	1	193	188,107	625	– 0·0	18,023
Tirutturaippūndi	485	3	143	182,981	377	+ 1·9	14,456
Pattukkottai	906	2	792	295,894	327	+ 8·9	18,608
District total	3,710	19	2,510	2,245,029	605	+ 0·8	226,928

Of the Hindu population, the most numerous castes are the field-labourer Paraiyans (310,000) and Pallans (160,000), and the agriculturist Vellālas (212,000), Pallis (235,000), and Kallans (188,000). Castes

which occur in greater strength here than in other Districts are the Tamil Brāhmans, whose particular stronghold is Kumbakonam; the Karaiyāns, a fishing community; the Nokkans, who were originally rope-dancers but are now usually cultivators, traders, or bricklayers; and the Melakkārans, or professional musicians. A large number of Marāthā Brāhmans, who followed their invading countrymen hither, are found in Tanjore city.

Less than the usual proportion of the inhabitants subsist from the land, but agriculture as usual largely predominates over other occupations. Tanjore is not, however, an industrial centre; and the percentage of those who live by cultivation is reduced merely by the large number of traders, rice-pounders, goldsmiths, and other artisans who are found within it. It also includes an unusually high proportion of those who live by the learned and artistic professions or possess independent means.

The Christian missions of Tanjore, both Protestant and Roman Catholic, are of unusual interest. The latter date from the days of St. Francis Xavier, who is said to have preached at Negapatam in the sixteenth century; but it is doubtful whether the District was ever within the sphere of his personal activities. In the seventeenth century, however, the Portuguese certainly conducted missionary enterprise from Negapatam. But, as happened elsewhere, after the decline of the Portuguese power in India the various missionary societies were involved in disputes and their influence declined. The rivalry between the Goanese and the other missions has in recent years been put an end to by a Concordat, under which a few towns have been left to the Goanese under the Bishop of Mylapore, while the river Vettār has been made the boundary between the Jesuit mission under the Bishop of Madura and the French mission under the Bishop of Pondicherry. The Roman Catholic missions have been far more successful in proselytizing than those belonging to Protestant sects, their converts numbering 86 per cent. of the Christian community.

The first Protestant missionaries to visit the District were the Lutherans, Plütschau and Ziegenbalg, who were sent out by the king of Denmark to Tranquebar in 1706. They were the first translators of the Bible into Tamil, and the mission founded by them was of no little importance throughout the eighteenth century. The most famous of its missionaries was Swartz. He was at one time chaplain to the English troops at Trichinopoly, but subsequently he connected himself with the Society for Promoting Christian Knowledge, and eventually returned to Tanjore as an English chaplain and founded the English mission there. Later, the Society for the Propagation of the Gospel succeeded the Society for Promoting Christian Knowledge as a missionary organization in Tanjore. Eventually the Tranquebar Danish

Mission, which had long been declining, was in 1841 succeeded by the Dresden Society, which, under the name of the Leipzig Evangelical Lutheran Mission, has extended its operations to most of the stations formerly worked by its predecessor. A Methodist mission was established at Mannārgudi in the third decade of the last century.

Agriculture.

More than half of the District consists of the delta of the Cauvery. This is almost entirely composed of alluvial soil, which in the west is a rich loam and gradually becomes more arenaceous till it terminates in the blown sands of the coast; a small tract of land between the Vettār and the Vennār is a mixture of alluvial soil and limestone. Rice is grown on these lands in both June and August, so as to take advantage of the two rainy seasons. The fertility of the delta depends almost entirely on the silt which is brought down by the Cauvery, but so rich is this deposit that the use of manure is extremely rare except occasionally in the case of double-crop lands. It would, however, perhaps be more freely used if it were less expensive. The richest lands tend to lie towards the apex of the delta, where the rice-fields of Tiruvādi are called, by a Virgilian metaphor, 'the breast of Tanjore'; and the fertility of the country decreases as the coast is reached, the deposits of silt from the water at the tail ends of the irrigation channels being neutralized by the influx of drainage water. The produce is poorest towards the south-west, a fact due both to the incompleteness of the irrigation system and to the greater distance the water has to travel and the consequent reduction in the amount of silt carried.

Except along the sandy coast of Pattukkottai, the non-deltaic part of the District is made up of red ferruginous soil, the irrigation of which depends on rain-fed tanks and precarious streams. In the delta by far the greater part of the land is under 'wet' cultivation, and 'dry crops' are frequent only outside it. The most fertile pieces of unirrigated land are the *padugais*, or strips of cultivation lying between the margins of the rivers and the flood embankments, which are annually submerged for some days by the silt-laden water. Tobacco, plantains, and bamboos are generally grown on these exceptionally rich fields.

Land in Tanjore is mainly held on *ryotwāri* tenure, the *zamīndāri* and *inām* areas covering only 1,239 square miles out of the District total of 3,710. Statistics for 1903–4 are given in the table on the next page, in square miles.

Rice is the staple grain of the delta, being raised on 1,683 square miles, or 77 per cent. of the cropped area there; it is indeed the most widely grown cereal in every *tāluk*, though its preponderance is less in Tanjore and Pattukkottai. The rice chiefly consists of varieties of the two main kinds, usually known as *kār* and *pisānam*. *Kār* rice is sown in June and reaped in September, while *pisānam* ripens more slowly

and is cut in February after seven months' growth. The latter commands a higher price; but the *kār* rice requires more water, can be grown at a more favourable season of the year, and thus yields a much more abundant crop. Except between Tiruvādi and Kumbakonam, it is not usual to cultivate two crops on the same plot of land in the same year; indeed seven-eighths of the delta consists of single-crop land. Over wide areas, however, the ryots adopt what is called *ūdu* cultivation, which consists in sowing two varieties of seed mixed together—one a quick-growing kind which matures in four months, and the other a kind which requires six months to ripen. The chief 'dry' cereals are *varagu*, *cambu*, and *rāgi*; the principal pulse, red gram; and the most important industrial crops, gingelly and ground-nuts. In the non-deltaic area *varagu* is the grain most extensively cultivated, the area under it being 97 square miles. Some *cholam* is grown in Pattukkottai, Tanjore, Mannārgudi, and Kumbakonam. Coco-nut palms and plantains are numerous; and in the last-named *tāluk* a moderate extent is cultivated with the Indian mulberry as a 'dry crop.'

Tāluk.	Area shown in accounts.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Māyavaram . .	284	241	193	2	...
Shiyāli . . .	171	134	94	3	4
Kumbakonam .	343	279	231	5	...
Negapatam . .	240	194	143	9	...
Nannilam . .	294	250	210	2	...
Tanjore . .	578	391	162	36	5
Mannārgudi . .	300	245	165	9	...
Tirutturaippūndi .	484	282	124	28	10
Pattukkottai . .	741	403	166	110	...
Total	3,435	2,419	1,488	204	19

Except in the Tanjore and Tirutturaippūndi *tāluks*, where considerable areas are unfit for cultivation, almost every yard of the delta has long been under the plough. Little extension of the area tilled is therefore possible. Nor have the agricultural methods in vogue shown any noteworthy advance, two matters which hinder improvement being that much of the District is owned by absentee landlords who sublet their properties, and that in a great deal of the rest the holdings have been minutely subdivided. Wells are not required, and there is little waste land to be reclaimed, and consequently the advances under the Loans Acts have never been considerable.

The delta is so closely cultivated that it contains little grazing ground, and consequently few cattle or sheep are bred. Such animals as are reared locally are usually small, and plough bullocks are largely imported from elsewhere, chiefly from Mysore and Salem. An inferior class of ponies is bred in small numbers at Point Calimere.

Of the total area under cultivation, 1,488 square miles, or 74 per cent., were irrigated in 1903–4. Of this extent, by far the greater portion (1,261 square miles) was watered from Government canals; the area supplied by tanks was only 194 square miles, and by wells 30 square miles. The tanks and wells number respectively 734 and 7,628, and are of comparatively small importance. They are found almost entirely in the upland tracts of the Tanjore and Pattukkottai *tāluks*.

As has been mentioned, the Cauvery and its branches are the principal source of irrigation, nearly 98 per cent. of the area watered from canals being supplied from them. The works which have been constructed to render the water of this river available for irrigation are referred to in the separate account of it. Briefly stated the position is this. The Cauvery throws off a branch, called the Coleroon, which forms the northern boundary of the District. This branch runs in a shorter course and at a lower level than the main stream, and consequently tends to draw off the greater part of the supply in the river. Two anicuts (or dams) have therefore been constructed to redress this tendency. One, called the Upper Anicut, crosses the Coleroon at the point where it branches off, and thus drives much of its water into the Cauvery; and the other, known as the Grand Anicut, is built across a point at which the two rivers turn to meet one another and through which much of the supply in the Cauvery used to spill into the Coleroon. Together these two dams prevent the Coleroon from robbing its parent stream of the water which is so vitally important to the cultivation of Tanjore. The supply thus secured is distributed throughout the delta by a most elaborate series of main and lesser canals and channels. Many of these, including the Grand Anicut itself, were constructed by former native governments; but the Upper Anicut and the many regulators and head-sluices which now so effectually control the distribution of the water are the work of English engineers. The Coleroon now serves mainly as a drainage channel to carry off the surplus waters of the Cauvery, but the Lower Anicut built across the latter part of its course irrigates a considerable area in South Arcot and also about 37 square miles in Tanjore.

There are no forests of any importance in the District. In the *tāluks* of Tanjore, Tirutturaippūndi, and Shiyāli, a few blocks of low jungle covering altogether 19 square miles are 'reserved'; but the growth in these is dense only at Vettangudi and Kodiyakādu, and the timber is not of any great value. The blocks are of some use as grazing land and for the supply of small fuel.

Tanjore contains few minerals of importance. Quartz crystals are found at Vallam, and laterite and limestone (*kankar*) are abundant in the south-west of the District. In the Tanjore *tāluk* yellow ochre is

found, and gypsum of poor quality near Nagore. Along the Pudukkottai frontier iron is met with, but it is doubtful whether it could be remuneratively worked.

The chief industries are weaving of various kinds and metal-work. Formerly Tanjore enjoyed a great reputation for its silks, but the District has suffered considerably from the decay of the textile industries which has followed the introduction of mineral dyes and the increasing importation of cheap piece-goods from Europe. The dyers have suffered most, and this once prosperous craft is now virtually extinct, the weavers doing their own dyeing or buying ready-dyed thread. The cotton- and carpet-weaving were once of some note, but have declined equally with, if not more than, the silk industry. Kornād and Ayyampettai, once famous centres of silk- and carpet-weaving, have greatly diminished in activity and importance. On the other hand, the weaving of the best embroidered silks, such as the gold- and silver-striped embroideries and the gold-fringed fabrics of Tanjore and Kumbakonam, shows no signs of becoming involved in the general decay.

Trade and communications.

In metal-work Tanjore is said to know no rival in the South but Madura. The Madura artisan, however, devotes himself mainly to brass, whereas in Tanjore brass, copper, and silver are equally utilized. The subjects represented are usually the deities of the Hindu pantheon or conventional floral work. The characteristic work of the District is a variety in which figures and designs executed in silver or copper are affixed to a foundation of brass. The demand for these wares is almost entirely European. The chief seats of the metal industry are Tanjore city, Kumbakonam, and Mannārgudi.

Among minor industries the bell-metal of Pisānattūr and the manufacture of musical instruments and pith models and toys deserve mention. The pith models of the temple at Tanjore are well-known. The printing presses at Tanjore and Tranquebar employ a large number of hands, and in this respect the District is second only to Madras City and is rivalled only by Malabar.

As distinguished from arts, manufactures are few. The South Indian Railway workshops, which for nearly forty years have been located at Negapatam, have contributed much to the prosperity of that now declining town.

Tanjore has the advantage from a commercial point of view of being situated on the coast and of being intersected by numerous railways. It possesses altogether fifteen ports, of which Negapatam is by far the most important. Tranquebar, Nagore, Muttupet, Adirāmpatnam, and Ammapatam are, however, ports of some pretensions. The chief centres of land trade, besides Negapatam, are Tanjore, Kumbakonam, Māyavaram, and Mannārgudi. Most of the trade, both by land and

sea, is in the hands of the Chettis and the Musalmān community of the Marakkāyans, the latter being very prominent in the coast towns.

The railways naturally take a large share in the carriage of articles of internal and general inland trade, and the local distribution of commodities is effected by weekly markets managed either by private agency or by the local boards. The chief articles of inland export are rice, betel-leaf, ground-nuts, oil, metal vessels, and cloths. The ground-nuts are sent to Pondicherry for export to Europe by sea, but the other commodities go by rail to all parts of Southern India. The inland imports are mainly salt from Tuticorin, gingelly and cotton seed from Mysore and Tinnevelly, kerosene oil from Madras, tamarinds and timber from the West Coast, and *ghī*, chillies, pulses, and lamp-oil from the neighbouring Districts.

The total exports by sea in 1903-4 were valued at 117 lakhs. Of this, Ceylon took rice to the value of 6½ lakhs and half a lakh's worth of coco-nuts. Most of this trade was conducted from Negapatam. Besides rice, the principal exports from that port were cotton piece-goods, live-stock, *ghī*, cigars, tobacco, and skins. Large quantities of all these articles are the produce of other Districts and are only brought through Tanjore for shipment. The imports in the same year amounted to 54 lakhs. At Negapatam the most important of these were areca-nuts, timber, and cotton piece-goods, while Adirāmpatnam and Muttupet received a fair quantity of gunny-bags and areca-nuts. The trade of Negapatam is mostly with Ceylon, the Straits Settlements, and Burma; but it deals to a small extent with the United Kingdom and Spain. The other ports either subsist on traffic with Ceylon or confine themselves to coasting trade. The District is not at present as important a centre of maritime commerce as formerly; for the development of the port of Tuticorin has deprived it of much of its commerce, and the opening of the railway from the northern Districts of the Presidency has resulted in the carriage by land of many classes of goods which were formerly imported by sea at Negapatam.

Tanjore is unusually well supplied with railways, all of them on the metre gauge. The South Indian Railway, the direct route between Madras and Tuticorin, traverses the District from north to west, passing through the towns of Māyavaram, Kumbakonam, and Tanjore. An older line connects Tanjore with Negapatam, and this has recently been extended to the neighbouring port of Nagore. A railway branches off from Māyavaram and runs southward as far as Arantāngi, a total distance of 99 miles. This was constructed jointly by the District board and the Government as far as Muttupet, and was owned by them in common till 1900, when the board acquired the exclusive ownership by purchase and commenced the further extension to Arantāngi. The funds for its original construction and for the extension now in progress

were raised by the levy of a cess of three pies in the rupee of the assessment on land in occupation, in addition to the cess of nine pies in the rupee collected for local purposes under the Local Boards Act. The undertaking was the first of its kind in India, and has proved such a financial success, the profits earned in 1902-3 being 4⅗ per cent. on the capital outlay, that other District boards are following the example and levying a cess for similar purposes, and the Tanjore board itself is contemplating the extension of its system. The French port of Kārikāl has been linked with Peralam on the District board railway, and a short branch from Tanjore to the Pillaiyārpatti laterite quarry, 5 miles in length, is used for bringing road-metal to the main line.

The total length of metalled roads in the District is 206 miles, and of unmetalled 1,531. Of these, 1,407 miles are lined with avenues of trees. With the exception of 182 miles of the unmetalled tracks, the whole of them are maintained from Local funds. The proportion of metalled to unmetalled roads is very low, owing to the extreme scarcity among the alluvial deposits, of which so much of the District consists, of any kind of stone suitable for road-making. The roads are often interrupted by the many rivers and channels which intersect the delta, and numerous bridges have accordingly been erected. That across the Grand Anicut, built in 1839, and consisting of thirty arches of a span of 32 feet each, is the most considerable of these.

Famine.

More than half of the District is protected from famine by the irrigation system already referred to. The devastations of Haidar Ali in 1781 caused perhaps the only real scarcity of food it has ever known. In the great famine of 1877, while in other Districts people were dying by thousands of want which no human power could alleviate, not only was the relief required in Tanjore insignificant in amount, but the high prices of grain which prevailed brought exceptional prosperity to the owners of the unfailing lands of the delta. The crops, it is true, were lost in the Pattukkottai *tāluk* and the uplands, but the inhabitants of these tracts found work in the fields of the neighbouring delta. This south-east corner of the District is poorly protected, but the proximity of the irrigated land in the delta prevents the people from ever suffering seriously.

Administration.

The District is divided into six administrative subdivisions. Of the officers in charge of them, two or three are members of the Indian Civil Service, the others being Deputy-Collectors recruited in India. The three subdivisions of Tanjore, Kumbakonam, and Pattukkottai consist only of the single *tāluk* after which each is named; the Negapatam subdivision includes the *tāluk* of that name and also Nannilam; the Mannārgudi subdivision is made up of Mannārgudi and Tirutturaippūndi *tāluks*; and the Māyavaram subdivision of that *tāluk* and Shiyāli. At the head-quarters of

each *tāluk* there is a *tahsīldār* and a stationary sub-magistrate, and deputy-*tahsīldārs* with magisterial powers are posted in every *tāluk* except Shiyāli. The superior staff of the District varies slightly from the normal. Owing to the amount of work caused by the elaborate irrigation system, two Executive Engineers are necessary, one at Tanjore and the other at Negapatam. A Civil Surgeon resides at Negapatam (where there is a considerable European population), in addition to the District Medical and Sanitary officer; but the forests of Tanjore are of such small extent that for forest purposes the District is attached to Trichinopoly.

Civil justice is administered by a District Judge, three Sub-Judges, and eleven District Munsifs. The people of Tanjore, like those of other wealthy areas in the Presidency, are extremely litigious, and the work of the courts is heavy. In addition to suits of the usual classes, cases under the Tenancy Act VIII of 1865 are very frequent, especially in Kumbakonam. They are mostly due to the system of absentee landlordism and sub-tenancies which has grown up round the *ryotwāri* tenure in this wealthy District. Serious crime is less common in Tanjore than in any other District in the Presidency, and ordinary thefts constitute more than half of the total number of cases.

From the earliest times, as far as can be ascertained, the *mirāsi* system, which is in some essentials similar to the *ryotwāri* tenure, obtained in Tanjore District as a whole. It is probably as old as the Chola dynasty, but it can only be proved to date back to Marāthā times. The system appears to have been based on a theory of joint communal ownership by the villagers proper (the *mirāsidārs*) of all the village land, and in former times often involved the joint management of the common lands or their distribution at stated intervals among the villagers for cultivation. But in spite of this communistic colouring the system always involved a scale of individual rights to specific shares in the net fruits (however secured) of the general property, and herein lay all the essential elements of private ownership of land. It was only a matter of detail to be settled in the village whether a villager's share was described in terms of crops or lands, and it seems to have come about gradually that lands were everywhere assigned permanently as the share and private property of the *mirāsidār*. Such a system was equally well adapted for the taxation of the villagers in a body or of each individual ryot.

Under the early Marāthā rulers the productive capacity of all the 'wet' lands in each village was assessed in the gross at a certain quantity of grain or grain standard, which was divided between the state and the cultivator at certain rates of division (*vāram*), the state share being converted into money at a commutation price fixed each year. The 'dry' lands were assessed at fixed rates, or had to pay the

value of a fixed share of the actual harvest each year according to the nature of the crop grown. The revenue history of the District has largely consisted of variations in the grain standard of the 'wet' lands and modifications in the rates of division and commutation price. The ryots had gradually succeeded in reducing their payments considerably before the short period of Muhammadan rule (1773–6); but the iron hand of Muhammad Alī succeeded in exacting a larger land revenue than has, as far as we know, ever been obtained before or since. He altered the system by demanding a specified share, not of the estimated produce or grain standard, but of the actual harvest. The restored Marāthās tried to retain this system, but were compelled by popular resistance to return to the old grain standard. From 1781 to the cession to the English a new *pathak* system was introduced by leasing the revenue of one or more villages to farmers (*pathakdārs*), with the object of encouraging cultivation after the desolating effects of Haidar Alī's invasion. This was for a time successful in its object, but quickly became a source of abuse, and was abolished as soon as the British obtained the country. The latter began by reviving Muhammad Alī's system (1800–4), in order to gather information about the real productive power of the land, and then levied money rents imposed in gross on the 'wet' lands of the whole village on leases of varying lengths till 1822–3. In that year the productive value of the 'wet' lands in each village was elaborately recalculated and a money assessment was thereby fixed on each village, which was to vary with considerable variations in the price of grain. This was called the *olungu* settlement, and it was extended to nearly the whole of the District, some villages being permitted to pay a grain rent on the old Marāthā system and some to pay the value of a share of the actual harvest. It was followed in 1828–30 by the *mottamfaisal* settlement, which was accompanied by a survey and was intended to resemble the scientific *ryotwāri* settlements of other Districts. In effect, however, it consisted only in a modification of the *olungu* assessments, together with a rule that whatever changes there might be in the price of grain the new assessments were not to vary. The assessments were also distributed in a few villages among the actual fields. This settlement was at first applied only to a part of the District, the rest remaining under the *olungu*; but it was extended to all but a few villages of exceptional character in 1859. The *olungu* ryots were at that time at a great disadvantage owing to the high prices, and gladly acquiesced in the change. *Pattas* (title-deeds) to individual ryots were first given in 1865, and from that date the revenue system of the District hardly differed in principle from that found elsewhere. Meanwhile varying policies had been adopted in the administration of the less important 'dry' lands; but both 'wet' and 'dry' were brought into line with

the rest of the Presidency by the new settlement of 1894. As a preliminary to this settlement a survey commenced in 1883, by which accurate measurements of the fields were first obtained. The survey disclosed that the actual area under cultivation was 5 per cent. more than that shown in the accounts; and the settlement enhanced the total revenue by 33 per cent., or about 15½ lakhs of rupees. The present average assessment per acre on 'dry' land is Rs. 1-7-8 (maximum Rs. 7, minimum 4 annas), that on 'wet' land in the delta Rs. 7 (maximum Rs. 14, minimum Rs. 3), and in non-deltaic tracts Rs. 3-6-11 (maximum Rs. 7, minimum Rs. 3).

The revenue from land and the total revenue in recent years are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	49,97	53,11	70,47	68,25
Total revenue . .	69,76	76,51	99,48	104,92

There are five municipalities in the District: namely, TANJORE CITY, KUMBAKONAM, NEGAPATAM, MĀYAVARAM, and MANNĀRGUDI. Beyond municipal limits local affairs are managed by the District board and the six *tāluk* boards of Tanjore, Kumbakonam, Negapatam, Māyavaram, Mannārgudi, and Pattukkottai, the charge of each of the latter being conterminous with one of the administrative subdivisions already mentioned. The total expenditure of these boards in 1903-4 was about 15 lakhs, the principal item being the District board railway and its extension, on which 7 lakhs was spent. Apart from the municipalities, 19 groups of villages have been constituted Unions, administered by *panchāyats* under the supervision of the *tāluk* boards.

The control of the police is vested in the District Superintendent at Tanjore City, an Assistant Superintendent at Negapatam being in immediate charge of the five southern *tāluks*. The force numbers 1,184 constables, working in 75 stations under 18 inspectors. The reserve police at Tanjore city number 96 men. There are also 2,013 rural police. The District jail is at Tanjore city, and 18 subsidiary jails have accommodation for 358 prisoners.

According to the Census of 1901, Tanjore District stands next to Madras City in regard to literacy, 10·1 per cent. of the population (20·3 per cent. of the males and 0·9 per cent. of the females) being able to read and write. There is not much difference among the various *tāluks* in this respect, except that Pattukkottai is far behind the others. The total number of pupils under instruction in 1880-1 was 29,125; in 1890-1, 47,670; in 1900-1, 61,390; and in 1903-4, 70,938. On March 31, 1904, the District contained 1,182 primary schools, 78 secondary and 7 special schools, besides 3 training schools

for masters and 3 Arts colleges. The girls in these numbered 8,092. There were, besides, 585 private schools, 52 of these being classed as advanced, with 13,334 pupils, of whom 1,302 were girls. Of the 1,273 institutions classed as public, 11 were managed by the Educational department, 153 by local boards, and 27 by municipalities, while 596 were aided from public funds, and 486 were unaided but conformed to the rules of the department. The great majority of pupils are in primary classes; but the number who have advanced beyond that stage is unusually large, the District in this respect, as in education generally, being in advance of all others except Madras City. Of the male population of school-going age 25 per cent. were in the primary stage of instruction, and of the female population of the same age 4 per cent. Among Musalmāns (including those at Korān schools), the corresponding percentages were 99 and 13. There are 158 special schools for Panchamas in the District, with 4,114 Panchama pupils of both sexes. The Arts Colleges are the Government College at KUMBAKONAM, St. Peter's College at TANJORE, and the Findlay College at MANNĀRGUDI. The total expenditure on education in 1903-4 was Rs. 5,22,000, of which Rs. 2,53,000 was derived from fees. Of the total, Rs. 2,43,000 (47 per cent.) was devoted to primary education.

Sixteen hospitals and 22 dispensaries, with accommodation for 398 in-patients, are maintained by the local boards and municipalities. A medical training school is attached to the hospital at Tanjore city. In 1903 the number of cases treated was 411,000, of whom 5,200 were in-patients, and 17,000 operations were performed. The expenditure was Rs. 87,000, the greater part of which was met from Local and municipal funds.

In 1903-4 the number of persons successfully vaccinated was 34 per 1,000 of the population. Vaccination is not compulsory except in the five municipalities.

[F. R. Hemingway, *District Gazetteer* (1906).]

Tanjore Tāluk.—Western *tāluk* and subdivision of Tanjore District, Madras, lying between 10° 26′ and 10° 55′ N. and 78° 47′ and 79° 22′ E., with an area of 689 square miles. The population in 1901 was 407,039, compared with 410,447 in 1891. There are 362 villages and four considerable towns: TANJORE CITY (population, 57,870), the head-quarters of both the District and the *tāluk*; the sacred town of TIRUVĀDI (7,821); VALLAM, where the Collector resides (7,590); and AYYAMPETTAI (9,454), famous for its carpets and mats. The demand for land revenue and cesses in 1903-4 amounted to Rs. 10,16,000. The *tāluk* differs from others in the District in the large number of the thief-caste Kallans it contains. It is divisible into two well-marked sections, the first including much of the apex of the Cauvery delta, and the second running up in the south and west to dry uplands

resembling those of the Pattukkottai *tāluk*. These two tracts are sharply contrasted, and the *tāluk* contains some of the best land in the District and also large tracts of the worst. There is more 'dry' land than irrigated, and 47 per cent. of the former is assessed at R. 1 an acre or less. Rice is more widely grown even here than any other crop; but a large area is under *cambu*, *rāgi*, ground-nuts, and red gram, the last of which is an unusual grain in this District.

Tanjore City (*Tanjāvūr*).—Head-quarters of the District and *tāluk* of the same name in Madras, situated in 10° 47′ N. and 79° 8′ E., on the main line of the South Indian Railway, 218 miles from Madras and 226 from Tuticorin. The population in 1871 was 52,175; in 1881, 54,745; in 1891, 54,390; and in 1901, 57,870. Tanjore now ranks as the eighth largest town in the Presidency. Eighty-five per cent. of the population are Hindus, there being only 3,600 Musalmāns, 4,796 Christians, and 154 Jains. Tanjore was successively the capital of the Chola, Naik, and Marāthā powers. It stood a siege by Chanda Sāhib and the French in 1749, and by the French under Lally in 1758, and was afterwards captured by Colonel Joseph Smith in 1773, though it was restored in 1776 to the Marāthā Rājā. In 1799, when Sarabhojī, the Rājā of Tanjore, ceded his territory to the British by treaty, he retained the city in his own hands. It lapsed to the British Government in 1855 on the death of his son, Sivajī, without heirs. Four surviving queens, besides other members of the family, still occupy the palace in the centre of the fort. There are two halls in this palace, known as the Marāthā and Naik Darbār Halls, in the latter of which stands a statue of Sarabhojī by Chantrey. The building also contains an armoury, and a library of 22,000 volumes in several Indian and European languages, principally Sanskrit.

Within the great fort, now dismantled, is a smaller erection called the Sivaganga fort. It encloses the sacred Sivaganga tank and the famous Brihadīswaraswāmi temple. The inscriptions on the walls of the latter ascribe its construction to the Chola king, Rājārājā I, in the eleventh century. It is built on a well-defined and stately plan, which was persevered with till its completion, an unusual feature in Dravidian temples. It consists of two courts, of which the first, originally devoted to minor shrines and residences, was converted into an arsenal by the French in 1772, and has not been reappropriated to sacred purposes. The temple proper stands in the second courtyard, surmounted by a tower 200 feet high. The carvings on this tower are all Vaishnavite, but everything in the courtyard, as well as the idol itself, is Saivite. Strangely enough, there is a figure on the northern side of the tower which appears to be that of a European, the popular explanation of which anachronism is that the eleventh-century architect foresaw the advent of the British. In front of the temple is a huge

monolith representing Siva's bull Nandi, and behind it is a shrine dedicated to Subrahmanya, 'as exquisite a piece of decorative architecture as is to be found in the South of India.' The great temple contains a very large number of ancient inscriptions of the Chola and other dynasties. Most of these have been deciphered, and many have been published in the second volume of Dr. Hultzsch's *South Indian Inscriptions.*

Under the native dynasties, Tanjore was considered the home of the fine arts. It still produces skilful artisans. In metal-work and in the manufacture of musical instruments the place is perhaps unrivalled in the Presidency; and its silk-weaving, lace, embroidery, jewellery, pith-work, and artificial garlands have a deservedly high reputation.

Tanjore was made the District head-quarters in 1860, five years after it came into the hands of the British, and possesses the usual staff of officials. There is a District jail which will hold 333 prisoners, with room in its hospital and observation cells, respectively, for 15 and 19 more. The present city consists of the fort and two suburbs, Karantattāngudi in the north, where the Brāhman quarter is situated, and Mānambuchāvadi in the south-east, where Europeans reside. The Society for the Propagation of the Gospel, the Methodists, the Lutherans, and the Roman Catholics all have mission stations here. The first of these is the successor of the mission founded in 1778 by the famous Swartz, who resided chiefly in Tanjore from that date to his death in 1798, and to whose memory a marble monument by Flaxman, representing Rājā Sarabhojī's last visit to the dying missionary, stands in the Swartz Church within the fort. St. Peter's College, founded as an English school by Swartz in the eighteenth century, rose to be a second-grade college in 1864 and a first-grade college ten years later. It was affiliated to the University of Madras in 1880, and has an average attendance of 130 in the college classes and 238 in the lower classes. It has throughout been managed by the Society for the Propagation of the Gospel. There are also an English high school maintained by private agency, a training school for teachers, and a technical institute.

Tanjore was constituted a municipality in 1866. The receipts and expenditure during the ten years ending 1902–3 averaged Rs. 1,33,000 and Rs. 1,34,000 respectively. In 1903–4 the income was Rs. 1,03,000, including the house and land taxes (Rs. 27,000), the vehicle and animal tax (Rs. 7,500), tolls (Rs. 17,000), water rate (Rs. 19,000), and markets and slaughter-houses (Rs. 11,500). The main heads of expenditure were water-supply (Rs. 20,000), conservancy (Rs. 21,500), roads and buildings (Rs. 10,700), and education (Rs. 11,000), out of a total of Rs. 96,000. The city is now supplied with water pumped from wells sunk in the bed of the Vennār. The works were opened

in 1895 and cost about 3½ lakhs. The expenditure on water-supply for the succeeding eight years, inclusive of extensions, averaged Rs. 26,600, and the receipts Rs. 15,900. A system of drainage for the fort was carried out in 1840 during the Rājā's time; and a scheme for the disposal of the sewage on a farm at a cost of Rs. 3,34,000 has been investigated, but is in abeyance for want of funds. The principal hospital was founded and endowed by public subscription in 1880, and is under the management of the District board. It contains 144 beds, and has attached to it a medical school, the staff of which was recently reorganized and considerably strengthened.

Tānk Tahsīl.—Subdivision and *tahsīl* of Dera Ismail Khān District, North-West Frontier Province, lying between 32° and 32° 30′ N. and 70° 4′ and 70° 43′ E., with an area of 572 square miles. It is bounded on the west by Wazīristān, and occupies the north-western corner of the District, at the foot of the Sulaimān Hills. The country long lay uninhabited, there being little to tempt any settlers in so barren a tract; but it was finally occupied by Pathān tribes from the western hills. The *tahsīl* was formerly a semi-independent State, and its Nawābs belonged to the Kati Khel section of the Daulat Khel clan, the most powerful of the original settlers, who gradually expelled all the rest. The last Nawāb, Shāh Nawāz Khān, who died in 1882, is said to have been twentieth in descent from Daulat Khān, who gave his name to the tribe. His family first assumed the tribal headship in the person of Katāl Khān, great-grandfather of Shāh Nawāz. His son, Sarwar Khān, a remarkable man, devoted himself throughout a long reign to the amelioration of his territory and his tribesmen. Under his sway the Daulat Khel changed from a pastoral to an agricultural people, and they still revere his memory, making his acts and laws the standard of excellence in government. Sarwar Khān towards the end of his life found it necessary to tender his submission to the Sikhs, after their occupation of Dera Ismail Khān, and his tribute was fixed at Rs. 12,000; but before his death (1836) it was gradually enhanced, as the Sikh power consolidated itself, to Rs. 40,000 per annum. Sarwar Khān was succeeded by his son Aladād Khān; and at the same time Nao Nihāl Singh, who was then in Bannu, raised the demand to a lakh. Aladād Khān was unable to meet the demand and fled to the hills, where he found a refuge among the Mahsūds. Tānk was then given in *jāgīr* to Nao Nihāl Singh; but Aladād kept up such a constant guerrilla warfare from the hills that the Sikh grantee at last threw up his possession in disgust. Malik Fateh Khān Tiwānā then for a time seized Tānk, but he was ousted by Daulat Rai, son of Dīwān Lakhi Mal, the Sikh governor; and it was made over to three dependants of the Nawābs of Dera, Shāh Nawāz Khān, the son of Aladād (who had died meanwhile), being left a beggar. In 1846,

however, the exiled chief attached himself to Lieutenant (afterwards Sir Herbert) Edwardes, who procured his appointment by the Lahore Darbār to the governorship of Tānk. After the annexation of the Punjab, the British Government confirmed Shāh Nawāz Khān in his post as governor; and he thenceforward enjoyed a semi-independent position, retaining a portion of the revenues, and entrusted with the entire internal administration, as well as with the protection of the border. The results, however, proved unsatisfactory, as regards both the peace of the frontier and the conduct of the administration. A scheme was accordingly introduced for remodelling the relations of the State. The Nawāb's income was increased, but he was deprived of all administrative powers, retaining only those of an honorary magistrate. Tānk thus became an ordinary *tahsīl* of Dera Ismail Khān District. It consists of a naturally dry and uninviting plain, intersected by ravines and low ranges of stony hills which here and there traverse the plain. By assiduous cultivation, however, it has acquired an aspect of prosperity and greenness which distinguishes it strongly from the neighbouring *tahsīl* of Kulāchi. The population in 1901 was 48,467, compared with 43,725 in 1891. The head-quarters are at TĀNK TOWN (population, 4,402), and the *tahsīl* also contains 78 villages. The land revenue and cesses in 1903–4 amounted to Rs. 67,000.

Tānk Town.—Head-quarters of the subdivision and *tahsīl* of the same name in Dera Ismail Khān District, North-West Frontier Province, situated in 32° 13′ N. and 70° 32′ E. Population (1901), 4,402. It stands on the left bank of a ravine which issues from the Tānk Zām pass, 40 miles north-west of Dera Ismail Khān town. It was founded by Katāl Khān, first Nawāb of Tānk. A mud wall surrounds the town, 12 feet in height and 7 feet thick, with numerous towers and two or three gates, but it is in bad repair. The fort, now in ruins, is an enormous pile of mud about 250 yards square. The walls, faced with brick, enclose a citadel 40 feet high. Tānk was declared a 'notified area' in 1893. The municipal income in 1903–4 was Rs. 11,500, chiefly derived from octroi; and the expenditure was Rs. 9,100. Timber and *ghī* are brought down from the hills of Wazīristān in considerable quantities, while the exports include grain, cloth, tobacco, and other luxuries. Sir Henry Durand, Lieutenant-Governor of the Punjab, lost his life here in 1870, from injuries received while passing on an elephant under a gateway. He was buried at Dera Ismail Khān. The military garrison has lately been withdrawn, and the post is now held by border military police.

Tanna.—District and town in Bombay Presidency. *See* THĀNA.

Tānsa Lake.—An artificial lake in Thāna District, Bombay, lying between 19° 32′ and 19° 36′ N. and 73° 14′ and 73° 18′ E., 53

miles north-east of Bombay City. It has been constructed by throwing a dam across the Tānsa river at a point behind the Māhuli hills. It was completed in 1892 and has a catchment area of 52½, and a water area of 5½ square miles, with a storage capacity of about 18,000 million gallons. The dam is 118 feet high and 1½ miles long. The existing aqueduct has a carrying capacity of 42 million gallons a day. The works cost nearly a crore and a half.

Tantabin.—Karen township of Toungoo District, Lower Burma, lying between 18° 35′ and 19° 4′ N. and 96° 27′ and 97° 9′ E., with an area of 647 square miles. It extends from the Sittang river to the mountain barrier bounding Karenni; and all but the plain of the Sittang in the west, some 10 miles broad, is hilly and populated by Karens. The rice lands in the plain are cultivated by the Burmans, while the Karens practise *taungya* or shifting cultivation on the highlands. The population was 18,478 in 1891, and 24,686 in 1901, equally divided into Karens (three-fourths of whom are Christians) and Burmans. The number of villages is 159, Tantabin (population, 994) being the head-quarters. The area cultivated in 1903-4 was 45 square miles, paying Rs. 48,000 land revenue.

Tanuku Tāluk.—Delta *tāluk* of Kistna District, Madras, lying between 16° 35′ and 16° 59′ N. and 81° 23′ and 81° 50′ E., with an area of 371 square miles. The population in 1901 was 238,758, compared with 204,048 in 1891. It contains 174 villages, of which Tanuku is the head-quarters. The demand on account of land revenue and cesses in 1903-4 amounted to Rs. 11,79,000. The *tāluk* is very fertile, and is commanded by the irrigation system from the Godāvari river. Nidadavolu, at the end of the main canal and on the railway, contains a large rice factory. The chief crops are rice, other cereals, oil-seeds, and sugar-cane.

Taping.—River of Burma, which rises in China about latitude 25° N., and flows in a south-westerly direction through the Kachin Hills and Bhamo District into the Irrawaddy, which it reaches 2 miles above the town of Bhamo. It enters the Irrawaddy plain at Myothit, and up to this point is navigable for launches in the rains. The river is about 150 miles in length, its course in British territory being about one-third of its total length. In the flood season the stream is erratic, and villages on its banks have at times been washed away by the shifting of its channel.

Tappa.—*Thakurāt* in the BHOPĀL AGENCY, Central India.

Tāpti.—One of the great rivers of Western India. The name is derived from *tāp*, 'heat,' and the Tāpti is said by the Brāhmans to have been created by the sun to protect himself from his own warmth. The Tāpti is believed to rise in the sacred tank of Multai (*multāpi*, 'the source of the Tāpti') on the Sātpurā plateau, but its real source is

two miles distant (21° 48′ N. and 78° 15′ E.). It flows in a westerly direction through the Betūl District of the Central Provinces, at first traversing an open and partially cultivated plain, and then plunging into a rocky gorge of the Sātpurā Hills between the Kālibhīt range in Nimār (Central Provinces) and Chikalda in Berār. Its bed here is rocky, overhung by steep banks, and bordered by forests. At a distance of 120 miles from its source it enters the Nimār District of the Central Provinces, and for 30 miles more is still confined in a comparatively narrow valley. A few miles above Burhānpur the valley opens out, the Sātpurā Hills receding north and south, and opposite that town the river valley has become a fine rich basin of alluvial soil about 20 miles wide. In the centre of this tract the Tāpti flows between the towns of Burhānpur and Zainābād, and then passes into the Khāndesh District of Bombay. In its upper valley are several basins of exceedingly rich soil; but they have long been covered by forest, and it is only lately that the process of clearing them for cultivation has been undertaken.

Shortly after entering Khāndesh the Tāpti receives on the left bank the Pūrna from the hills of Berār, and then flows for about 150 miles through a broad and fertile valley, bounded on the north by the Sātpurās and on the south by the Sātmālas. Farther on the hills close in, and the river descends through wild and wooded country for about 80 miles, after which it sweeps southwards to the sea through the alluvial plain of Surat District, becoming tidal for the last 30 miles of its course. The banks (30 to 60 feet) are too high for irrigation, while the bed is crossed at several places by ridges of rock, so that the river is navigable for only about 20 miles from the sea. The Tāpti runs so near the foot of the Sātpurās that its tributaries on the right bank are small; but on the left bank, after its junction with the Pūrna, it receives through the Girnā (150 miles long) the drainage of the hills of Bāglān, and through the Bori, the Pānjhra, and the Borai, that of the northern buttress of the Western Ghāts. The waters of the Girnā and the Pānjhra are dammed up in several places and used for irrigation. On the lower course of the Tāpti floods are not uncommon, and have at times done much damage to the city of Surat. The river is crossed at Bhusāwal by the Jubbulpore branch of the Great Indian Peninsula Railway, at Savalda by the Bombay-Agra road, and at Surat by the Bombay, Baroda, and Central India Railway. The Tāpti has a local reputation for sanctity, the chief *tīrthas* or holy places being Chāngdeo, at the confluence with the Pūrna, and Bodhān above Surat. The fort of Thālner and the city of Surat are the places of most historic note on its course, the total length of which is 436 miles. The port of Suvāli (Swally), famous in early European commerce with India,

and the scene of a famous sea-fight between the British and the Portuguese, lay at the mouth of the river, but is now deserted, its approaches having silted up.

Tapun.—Northern township of Tharrawaddy District, Lower Burma, bordering on Prome District, lying between 18° 15′ and 18° 47′ N. and 95° 22′ and 95° 58′ E., with an area of 694 square miles. Except in the east, where the forests of the Pegu Yoma cover the ground, it is a level plain. The population was 60,127 in 1891, and 67,589 in 1901. It contains 327 villages, of which the largest is Tapun (population, 1,697), the head-quarters, lying 9 miles to the west of the railway line, which runs north-west and south-east through the township. The area cultivated in 1903–4 was 97 square miles, paying Rs. 1,20,000 land revenue.

Tarabganj.—Southern *tahsīl* of Gondā District, United Provinces, comprising the *parganas* of Nawābganj, Mahādeva, Digsir, and Guwārich, and lying between 26° 46′ and 27° 10′ N. and 81° 33′ and 82° 18′ E., with an area of 627 square miles. Population fell from 385,560 in 1891 to 364,993 in 1901. There are 546 villages and three towns, NAWĀBGANJ (population, 7,047) and COLONELGANJ (6,817) being the largest. The demand for land revenue in 1903–4 was Rs. 4,17,000, and for cesses Rs. 43,000. The density of population, 582 persons per square mile, is considerably above the District average. A small portion of the *tahsīl* lies in the central upland, but most of it is included in the *tarhar* or lowland tract. A small 'reserved' forest of about 15 square miles is situated in the east of the *tahsīl*. In ordinary years irrigation is required only for the more valuable crops, and in seasons of excessive rain considerable damage is caused by floods or blight. The southern boundary is formed by the Gogra, which has a very variable channel. The Chamnai, Manwār, Tirhī, and Sarjū or Suhelī also drain this *tahsīl*. In 1903–4 the area under cultivation was 367 square miles, of which 93 were irrigated, wells being the chief source of supply.

Tārāgarh.—Old hill fortress overlooking AJMER CITY.

Tarahuwān.—Village in the Karwī *tahsīl* of Bāndā District, United Provinces. *See* KARWĪ TOWN.

Tarai.—Southern portion of Nainī Tāl District, United Provinces, comprising the *parganas* of Bāzpur, Gadarpur, Kichhā, Kilpurī, Nānakmatā, and Bilherī, and lying between 28° 45′ and 29° 26′ N. and 78° 5′ and 80° 5′ E., with an area of 776 square miles. Population fell from 137,396 in 1891 to 118,422 in 1901. There are 404 villages, but no town. The demand for land revenue in 1903–4 was Rs. 70,000, and for cesses Rs. 1,700. The density of population, 153 persons per square mile, is lower than in the adjacent tracts to the south. The Tarai is a damp malarious region which can be safely inhabited only

for certain parts of the year, except by the Thārus and Boksās. The drainage of the Outer Himālayas, after sinking to an unknown depth in the boulder-beds of the Bhābar, reappears here in a line of springs which gradually form into small streams, from which canals are drawn. Rice is the great staple of cultivation. In 1903-4 the area under cultivation was 195 square miles, of which 38 were irrigated, chiefly from canals. Most of the Tarai is managed as a Government estate, and the rents amount to about 2·5 lakhs in addition to the revenue stated above.

Tārakeswar.—Village in the Serampore subdivision of Hooghly District, Bengal, situated in 22° 53′ N. and 88° 2′ E. Population (1901), 1,032. Tārakeswar is famous for its shrine dedicated to Siva, which is resorted to by large crowds of pilgrims all the year round. This temple is richly endowed with money and lands, supplemented by the offerings of wealthy devotees. It is under the management of a *mahant* or priest, who enjoys its revenues for life. Two large religious gatherings are held annually at Tārakeswar. The first of these, the Sivarātri, takes place in February; and the ceremonies enjoined on this occasion are considered by the followers of Siva to be the most sacred of all their observances. The three essential rites of the Sivarātri are: fasting during the day, holding a vigil during the night and worshipping Siva as the marvellous and interminable *lingam*, thereby typifying the exaltation of Siva-worship over that of Vishnu and Brahmā. It is estimated that 20,000 people visit the shrine on the occasion of this festival. A fair held at the same time continues for three days. The second great religious festival is the Chaitra Sankrānti (or New Year's eve) falling in April, which is also the day of the swinging festival. The temple is then visited by persons who come for penance, or to lead a temporary ascetic life, in fulfilment of vows made to Siva at some crisis of their lives. The swinging festival of the present day is a very harmless affair compared with what it was formerly; the votaries are merely suspended by a belt, instead of by hooks pierced through the flesh. The fair on this occasion lasts six days, and is attended by some 15,000 people. A branch of the East Indian Railway from Seorāphuli to Tārakeswar was opened in 1885, and the village can also be reached by the Tārakeswar-Magrā Railway.

Tarāna.—Head-quarters of a *pargana* in the Mehidpur district of Indore State, Central India, situated in 23° 20′ N. and 76° 5′ E., 44 miles from Indore city, and 8 miles from Tarāna Road station on the Ujjain-Bhopāl Railway. Population (1901), 4,490. Under Akbar, it was the head-quarters of a *mahāl* in the Sārangpur *sarkār* of the *Sūbah* of Mālwā, and was known as Naugaon. In the later Mughal revenue papers it appears as Naugama-Tarāna. The large number of fine trees which surround it and the numerous traces of old foundations show that it was at one time a place of considerable size. At present

it consists of a small partially ruined Muhammadan fort, surrounded by poorly built houses, none of which is of any size. The town came into the possession of Holkar in the eighteenth century, and appears to have been included in the personal *jāgīr* of the famous Ahalyā Bai, who built the temple of Tilbhāndāreshwar and is said to have planted a large number of trees. On the marriage of Jaswant Rao Phanse with her daughter Mukta Bai, Tarāna was granted him in *jāgīr* and remained in the Phanse family until 1849, when it was resumed owing to the misconduct of Rājā Bhao Phanse. Tarāna was created a municipality in 1902. Besides the *pargana* offices, a State post office, a police station, a school, a dispensary, and an inspection bungalow are situated in the town.

Taraon.—One of the CHAUBE JĀGĪRS in Central India, under the Political Agent in Baghelkhand, with an area of about 26 square miles, surrounding the fort of Taraon formerly held by the Rājās of Pannā. On the creation of the Chaube Jāgīrs in 1812, Taraon fell to Chaube Gaya Prasād, son of Gajādhar, fourth son of Rām Kishan. The present holder is Chaube Brij Gopāl, who succeeded his brother, Chaturbhuj, in 1894. The population in 1901 was 3,178. There are 13 villages. Of the total area, 12 square miles, or 49 per cent., are cultivated. The revenue of the estate is Rs. 10,000. Taraon or Tarahuhān, the chief place, is situated in 24° 59′ N. and 80° 57′ E., one mile from Karwī station on the Jhānsi-Mānikpur section of the Great Indian Peninsula Railway; population (1901), 670. The present *jāgīrdār*, however, resides at Pathraundī, 5 miles north-west of Taraon; population (1901), 444.

Tārāpur.—Town in the State of Cambay, Bombay, situated in 22° 29′ N. and 72° 44′ E., about 12 miles north of Cambay town. Population (1901), 4,438. Tārāpur is a station on the railway, and contains a dispensary and a school.

Tārāpur-Chinchani.—Port and group of two villages in the Māhīm and Dāhānu *tālukas* of Thāna District, Bombay, situated in 19° 52′ N. and 72° 41′ E. The village of Chinchani lies on the north bank and Tārāpur on the south bank of the Chinchani-Tārāpur creek, 15 miles north of Māhīm. Population (1901), 7,051, largely consisting of Pārsī and Wānī money-lenders. Chinchani is a very old town, the Chechijna of a Nāsik cave inscription of the first century. In the Pārsī quarter of Tārāpur there is a fire-temple built about 1820 by a well-known Pārsī contractor, Vikajī Mehrjī. Tārāpur is a seaport. The value of trade in 1903–4 was 15½ lakhs; namely, imports 6 lakhs and exports 9½ lakhs. The imports consist chiefly of rice, salt, sugar, kerosene, and iron; and the exports, of rice, unsalted fish, and firewood. The villages contain a dispensary, and an English middle school with 29 pupils.

Tarikere Tāluk.—Northern *tāluk* of Kadūr District, Mysore State, lying between 13° 30′ and 13° 54′ N. and 75° 35′ and 76° 9′ E., with an area of 468 square miles. The population in 1901 was 79,472, compared with 72,352 in 1891. The *tāluk* contains two towns, TARIKERE (population, 10,164), the head-quarters, and Ajjampur (2,164); and 236 villages. The land revenue demand in 1903–4 was Rs. 1,38,000. The Bābā Budan range enters the south-west, its slopes being covered with heavy forest, partially cleared for coffee plantations. Along the north are the Ubrāni hills, at one time covered with thick bamboo jungle. The annual rainfall averages 31 inches. Black cotton soil prevails in the east, which is bare of trees, but yields fine crops of wheat, cotton, Bengal gram, great millet, &c. On the red soil of other parts *rāgi* and pulses are grown. Iron ore is worked in the Ubrāni hills, and at Lingadahalli at the western foot of the Bābā Budans. Near Ajjampur are old gold-workings; and mining has been recently revived in the Kadūr-Mysore mines, under European management, but so far without much success.

Tarikere Town.—Head-quarters of the *tāluk* of the same name in Kadūr District, Mysore, situated in 13° 43′ N. and 75° 49′ E., on the Shimoga branch of the Mysore State Railway. Population (1901), 10,164. The old town was at Kātūr, to the north-west, and was founded at the end of the twelfth century by the Hoysalas. The descendants of the chief on whom it was bestowed fortified Kāmandurga on the Bābā Budans. The place was captured by the king of Vijayanagar in the fourteenth century, and given to one of his generals. From this family it was taken by the Sultān of Bijāpur. The Kātūr territory was next given by the Mughals to the chief of Basavāpatna, who built the town and fort of Tarikere in 1659. The Tarikere *poligārs* continued in power till subdued by Haidar Alī in 1761. The head of the family escaped from Mysore in 1830, and took a leading part in the rebellion which then broke out. His son continued at large, creating disturbances, till 1834, when he was caught and hanged. The town has considerably increased since the construction of the railway in 1899. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 8,800 and Rs. 7,800 respectively. In 1903–4 they were Rs. 11,000 and Rs. 9,000.

Tarkessur.—Village and place of pilgrimage in Hooghly District, Bengal. *See* TĀRAKESWAR.

Tarn Tāran Tahsīl.—*Tahsīl* of Amritsar District, Punjab, lying between 31° 10′ and 31′ 40′ N. and 74° 33′ and 75° 17′ E., with an area of 597 square miles. It forms a triangle with its base resting on the Beās, which divides it from the State of Kapūrthala. The country west of the high bank of the river is a level plain with a soil of fertile loam, traversed from north to south by two natural drainage channels,

and irrigated by the Bāri Doāb Canal. The population in 1901 was 325,576, compared with 305,127 in 1891. The town of TARN TĀRAN (population, 4,428) is the head-quarters. It also contains the town of VAIROWĀL (5,439) and 338 villages. The land revenue and cesses in 1903-4 amounted to Rs. 4,72,000.

Tarn Tāran Town.—Head-quarters of the *tahsīl* of the same name in Amritsar District, Punjab, situated in 31° 27′ N. and 74° 56′ E., on the Amritsar-Pattī branch of the North-Western Railway. Population (1901), 4,428. A metalled road connects the town with Amritsar, which is 14 miles to the north. Tarn Tāran is the chief town in the Amritsar MĀNJHA, or upland tract; but its importance is entirely religious, and centres round the sacred tank, said to have been dug by Arjun, the fifth Gurū of the Sikhs, which is 300 yards square, with a paved walk running round it. Ranjīt Singh greatly revered the temple at Tarn Tāran, which was originally built in 1768, and overlaid it with plates of copper gilt, besides richly ornamenting it. On the north side of the tank stands a lofty column, erected by prince Nao Nihāl Singh. The water of the tank is supposed to cure leprosy, and lepers come to it even from places beyond the Punjab. The leper asylum outside and the large leper quarter within the city testify more to the fame of the tank than to its healing qualities. The asylum was handed over to the care of the Mission to Lepers in India and the East in 1903. The Sobraon branch of the Bāri Doāb Canal flows within a short distance of the town, and from this the great tank is supplied with water through a channel constructed at the expense of the Rājā of Jīnd. A fair is celebrated monthly, especially in the months of Chait and Bhādon, when large crowds assemble. The municipality was created in 1875. The income during the ten years ending 1902-3 averaged Rs. 7,700, and the expenditure Rs. 7,400. In 1903-4 the income was Rs. 10,300, chiefly from octroi; and the expenditure was Rs. 9,300. The chief industries are the manufacture of iron vessels and wooden cotton-presses. The trade of the town is not important. It has three middle schools, a Government dispensary, and a female mission hospital.

Tārvai.—*Tāluk* of Warangal District, Hyderābād State, formed in 1905 from the northern villages of the former Pākhāl *tāluk*. The number of *khālsa* villages is 155, of which Tārvai (population, 97) is the head-quarters. The land revenue is only Rs. 27,800. It is very thinly populated and has a large area of forest.

Tāsgaon Tāluka.—*Tāluka* of Sātāra District, Bombay, lying between 16° 48′ and 17° 13′ N. and 74° 24′ and 74° 58′ E., with an area of 325 square miles. It contains one town, TĀSGAON (population, 10,975), the head-quarters; and 48 villages, including BHILAVDI (7,651) and PALUS (5,070). The population in 1901 was 92,412, compared with 93,185 in 1891. The density, 284 persons per square mile, is

somewhat above the District average. The demand for land revenue in 1903–4 was 1·6 lakhs, and for cesses Rs. 13,000. The south-east is interspersed with many patches of Sāngli and Mirāj States. The whole of the *tāluka* is rather low, especially the land near the meeting of the Yerla and the Kistna. The northern and eastern portions are rocky and barren, crossed by ranges of low hills which branch from the Khānāpur plateau. The west and south-west on and near the great rivers form a continuation of the rich plain of the eastern Vālva, and like it are well wooded with mango and *babūl*. The only important rivers are the Kistna, forming the western boundary, and the Yerla, which enters the *tāluka* from the north. Near the Kistna and Yerla the soil is rich black; towards the north-east it is rocky and barren. The annual rainfall at Tāsgaon town averages 25 inches. It is slighter and more variable in the east of the *tāluka*.

Tāsgaon Town.—Head-quarters of the *tāluka* of the same name in Sātāra District, Bombay, situated in 17° 2′ N. and 74° 36′ E., on the Southern Mahratta Railway. Population (1901), 10,975. The town stands on rising ground, on the north bank of a stream which flows into the Yerla about 4 miles to the south-west. It was originally surrounded by walls, now ruined, and was entered by four gates. Within stands the mansion of the Patvardhan family, likewise enclosed by walls and three fortified gates, of which the northernmost was blocked up in 1799 on the death of Parasu Rāma Bhau, the greatest of the Patvardhans. A fine temple of Ganpati, about a century old, stands at a little distance from the mansion. The municipality, constituted in 1867, had an average income during the decade ending 1901 of Rs. 7,800. In 1903–4 the income was Rs. 7,700. The town contains a Subordinate Judge's court, an English school, and a dispensary.

Tashkurghān.—Town in Afghān-Turkistān, situated in 36° 42′ N. and 67° 41′ E.; 1,495 feet above the sea. It is the largest and richest place in the province, and the principal trade mart between Central Asia and Kābul. It is practically unwalled, though it possesses an Ark or citadel. Like Mazār-i-Sharif, the provincial capital, it is rather a mass of inhabited orchards than an ordinary town; and the ground it covers (5 or 6 miles by 2 or 3 miles) is enormous compared with the population, which consists of not more than 4,000 families, chiefly Uzbegs and Tājiks. There are from 450 to 500 shops. The streets are only 10 or 12 feet wide, but are fairly straight, intersecting each other at right angles. The houses are mostly domed, though wood is fairly plentiful, there being many *chinārs* and poplars, as well as fruit trees, in the vicinity. Drinking-water is obtained from the Tashkurghān river, by covered conduits, which take off above the town. The grain production of Tashkurghān is small; there is abundance of

excellent land, but not enough water to irrigate it. Fruit and vegetables are plentiful, and immense numbers of sheep are pastured in the surrounding country. Tashkurghān is the head-quarters of a district of the same name.

Tatta Subdivision.—Subdivision of Karāchi District, Sind, Bombay, composed of the KARĀCHI, TATTA, MIRPUR SAKRO, and GHORĀBĀRI *tālukas*.

Tatta Tāluka (*Thato*).—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 31′ and 25° 27′ N. and 67° 34′ and 68° 24′ E., with an area of 1,229 square miles. The population in 1901 was 41,745, compared with 37,086 in 1891. The *tāluka* contains one town, TATTA (population, 10,783), the head-quarters; and 35 villages. The land revenue and cesses in 1903-4 amounted to Rs. 62,000. The *tāluka* is about 60 miles long, the alluvial portion consisting of a narrow irregular tract between the Indus and the Kohistān *mahāl*. The northern portion is rather hilly, and in the south the Malki hills skirt the western side. The *tāluka* contains several *dhands* or lakes, fed by rainfall, which occasionally overflow and do considerable damage. Irrigation is derived from six main canals and their branches. The chief crops are rice, sugar-cane, wheat, barley, *jowār*, *bājra*, and *til*.

Tatta Town (*Thato*; known among the inhabitants as *Nagar Thato*).—Head-quarters of the *tāluka* of the same name in Karāchi District, Sind, Bombay, situated in 24° 45′ N. and 67° 58′ E., about 7 miles west of the right bank of the Indus, and about 50 miles east of Karāchi. Population (1901), 10,783. The town is built on a slight eminence in an alluvial valley at the foot of the Makli hills. It would appear to have been at one time surrounded by the waters of the Indus; and to this day, after the subsidence of the annual inundation, numerous stagnant pools are left. A bad form of fever prevails at particular seasons of the year. It was mainly from this cause, combined with the unwholesome water of the place, that the British troops stationed here in 1839 suffered serious mortality. Tatta is most easily and speedily reached from Karāchi by the North-Western Railway as far as Jungshāhi, whence a metalled road, 13 miles long, leads directly to the town. The municipality, established in 1854, had an income during the decade ending 1901 averaging about Rs. 24,000. In 1903-4 the income was Rs. 30,600. The town is the head-quarters of an Assistant Collector, and contains a middle school and a dispensary. Other modern buildings are the Steele Hall and a library.

Tatta has played a very important part in the history of Sind, and was one of the Sammā capitals. When Akbar annexed Sind, Tatta was under the rule of Mirza Jānī Beg, who was allowed to retain it as a *jāgīr*. In 1739 it was ceded to Nādir Shāh of Persia, and was subsequently acquired by the Kalhoras, from whom it passed to the

Tālpur Mīrs. The population of Tatta fell off very much during the eighteenth century. Alexander Hamilton, who visited the place in 1699, calls it a large and rich city, about 3 miles long and 1½ broad. He states that 80,000 persons had, a short time previous to his visit, died of the plague, and that one-half of the city was in consequence uninhabited. It is also related by Pottinger that, when Nādir Shāh entered Tatta at the head of his army in 1742, there were 40,000 weavers, 20,000 other artisans, and 60,000 dealers of various kinds. In 1837 Captain J. Wood (of the Indian Navy), who had good opportunities of judging in this respect, estimated the entire population at not more than 10,000. The present trade of Tatta consists mostly of silk and cotton manufactures and grain. *Lungīs* (scarves or shawls), a thick, rich, and variegated fabric of cotton and silk, are still made, but not to the same extent as formerly. Coarse cotton fabrics, both plain and coloured, are also woven to some extent, but they have been largely superseded by the cheaper Manchester and Bombay goods. In 1758 a factory was established at Tatta by the East India Company, but it was withdrawn in 1775. Again, in 1799, another commercial mission was attempted, but this, like the former, terminated unsatisfactorily. In 1837 the total silk and cotton manufactures of Tatta were valued at Rs. 4,14,000, and the imports of British goods at Rs. 30,000. At present, the entire value of the local import trade, comprising upwards of twenty-five different articles, averages between 4 and 5 lakhs, the largest items being cotton cloth, rice, and sugar. The exports are also considerable, consisting of rice, *ghī*, grass, vegetables, fresh fruit, and wool. As regards the transit trade, a portion of the grain received from the Sujāwal, Jāti, and Shāhbandar *tālukas* finds its way through this town to Karāchi and the neighbouring hill country. The bulk of the road traffic of Central and Lower Sind passes through Tatta.

Among the ancient remains of Tatta may be mentioned the Jāma Masjid and fort. The site is undoubtedly of great antiquity, and it has by some been supposed to be the Patāla of the ancients. Outram assigns the foundation of the present town to the year 1445, but other writers state that it was not founded before 1522. The general opinion is that the former date is the more correct, and that the town owes its rise to a prince of the Sammā dynasty, Jām Nizām-ud-dīn (commonly called Jām Ninda), whose tomb is to this day pointed out among others on the Makli hills. In 1555 Tatta is said by Postans to have been pillaged and burnt by Portuguese mercenaries, and in 1592 it was again destroyed during the invasion of Sind by Akbar. The Jāma Masjid, by far the finest building in Tatta, is supposed to have been commenced in 1644 by order of the Mughal emperor, Shāh Jahān, as a memorial of his regard for the inhabitants, he having been permitted

to pay his devotions in the former chief mosque during his flight from his father Jahāngīr. The building is rectangular in shape, 315 feet long by 190 feet wide, and covers a space of 6,316 square yards. The interior is beautifully painted in encaustic, the delicacy and harmony of the colouring being remarkable; there are also some very elegant specimens of perforated stonework in different parts of the mosque. It is said to have cost 9 lakhs; but it would, in all probability, have long since fallen into decay, had not the inhabitants of Tatta, by subscriptions raised among themselves, assisted by a money grant from the British Government, put the building into substantial repair. On the southern outskirts of the town stands the Dabgar Masjid, the oldest mosque in Tatta, built in 1509. It contains remains of very good tile-work. The fort of Tatta was commenced about 1699, during the reign of Aurangzeb, by Nawāb Hāfiz-ullah, but it was never completed. The foundation has now been almost entirely removed to provide material for building purposes.

Tattamangalam.—Town in the Chittūr *tāluk* of Cochin State, Madras, situated in 10° 41′ N. and 76° 42′ E. Area, 5½ square miles; population (1901), 6,222, of whom 79 per cent. are Hindus and 20 per cent. Musalmāns. It is a place of some trade, which is chiefly in the hands of the Musalmāns.

Taungbaing.—State in the Northern Shan States, Burma. *See* TAWNGPENG.

Taungdwingyi Subdivision.—Eastern subdivision of Magwe District, Upper Burma, comprising the SATTHWA, MYOTHIT, and NATMAUK townships.

Taungdwingyi Town.—Head-quarters of the subdivision of the same name in the Satthwa township of Magwe District, Upper Burma, situated in 20° N. and 95° 33′ E., in the centre of the country watered by the Yin and its tributaries, rather more than 40 miles to the south-east of Magwe town. Population (1901), 5,941. Taungdwingyi was occupied in the expedition of 1885–6, and was until 1888 the head-quarters of a District made up of the greater part of what is now Magwe District. The town is a fairly prosperous trade centre, has a large bazar, and does a steady trade in cart-wheels and lacquered wood ware. It was constituted a municipality in 1887. During the ten years ending 1901 the income and expenditure averaged a little more than Rs. 12,000. In 1903–4 the receipts were Rs. 15,300, bazar rents, &c., producing Rs. 12,100; and the expenditure was Rs. 14,900, the chief items of outlay being Rs. 3,800 on the town hospital and Rs. 2,900 each on conservancy and public works. The hospital has 30 beds. A jail is still maintained at Taungdwingyi, one of the survivals from the time when the town was the head-quarters of a District.

Taunggyi.—Head-quarters of the Superintendent and Political officer of the Southern Shan States, Burma, situated in 20° 47′ N. and 96° 58′ E., 105 miles from the railway, on a small plateau in the Yawnghwe State, at an elevation of 5,000 feet above sea-level. On the north the aspect is open, giving fine views of the Yawnghwe and Lawksawk States; on the other three sides the station is shut in by hills. The public buildings comprise the residency, a *darbār* hall, the usual Government offices, and a school for the sons of Shan chieftains, erected in 1901, and at present attended by about 70 boys. Taunggyi has 8 miles of metalled roads within its limits, and an unmetalled circular road 6¼ miles in length runs round the station. There are large bazar buildings in the native quarter; and the market, held every five days, is largely attended, as the town is at the head of the cart-road from the railway, and is thus a distributing centre for a considerable area. A pure and abundant supply of water has been obtained at a cost of Rs. 83,000 from a spring on the hills in the neighbourhood. The water is brought in by a canal, and its distribution by pipes to the public buildings, police lines, and town is being carried out at Government expense, and also from funds subscribed by the Shan chiefs as a memorial to Her late Majesty Queen Victoria. Expenditure on public objects in the station is ordinarily met from a fund known as the Taunggyi improvement fund, which in 1903–4 had an income of Rs. 10,000, one-half derived from *thathameda* and the other half from bazar and slaughter-house fees. Experimental cultivation of imported fruit has been successfully carried out in the Government orchard, from which trees are distributed throughout the States at nominal prices. The population of Taunggyi in 1901 was 2,816; but in November, 1904, this total had risen to 3,452, of whom 1,525 were Shans, 1,328 natives of India (including soldiers and police), and the rest Burmans, Chinese, and Europeans. The station is healthy, the temperature in 1903 varying from 37° in December to 87° in April.

Taungtha.—Central township of Myingyan District, Upper Burma, stretching from Meiktila District to the Irrawaddy, between 21° 0′ and 21° 26′ N. and 95° 10′ and 95° 39′ E., with an area of 516 square miles. The greater part consists of high ground, sloping down in the west towards the river, on which cotton, *jowār*, beans, and sesamum are grown. The population was 57,975 in 1891, and 57,729 in 1901, distributed in 203 villages. The head-quarters are at Taungtha (population, 2,175), a small market on the railway, which traverses the township. In 1903–4 the area cultivated was 172 square miles, and the land revenue and *thathameda* amounted to Rs. 1,19,000.

Taungthas.—A tribe of Upper Burma. *See* PAKOKKU DISTRICT.

Taungthus ('Hill people').—A tribe of Karen origin, inhabiting

the eastern border of Burma and the western border and centre of the Southern Shan States. In 1901 the Taungthus numbered 168,301. They are a widely scattered people, being found all along the eastern highlands between 16° and 22° N. latitude; but their two main centres are in the country round about the lower reaches of the Salween, and in the neighbourhood of the Southern Shan State of Hsahtung, the *Myoza* or administrator of which is a Taungthu. Amherst and Thaton are the two Lower Burma Districts which contain most Taungthus. The latter District is said to have been their original home; and one of their legends has it that when in the eleventh century the king of Thaton was carried away captive to Upper Burma and his kingdom was broken up, a number of Taungthus went north and founded a new Thaton (Hsahtung) in the Shan States. The Taungthus speak a language which is closely allied to Karen. Their name for themselves is Pa-o. They are a sturdy, thickset race, swarthier in the south than their neighbours. The men dress like Shans, in the ordinary jacket and loose trousers. The women have, as is the general rule among the eastern hill tribes, a costume of their own. The upper garment resembles the Karen *thindaing* or sleeveless smock, and in Thaton is of dark blue cloth trimmed with red; under this are worn a skirt reaching to the knee, and usually leggings of cloth, though these are dispensed with in the south. The head-dress consists of a turban of tasselled cloth, which is held in position with hairpins and silver bands. The Taungthus are nominally Buddhists and have monasteries; but spirit-worship is very rife among them, and village and house *nats* are regularly propitiated. They have a written character, differing in this respect from all the eastern highlanders, with the single exception, perhaps, of the Lolos.

Taungup.—Northernmost township of Sandoway District, Lower Burma, lying between 18° 38′ and 19° 32′ N. and 94° 0′ and 94° 44′ E., with an area of 1,510 square miles. The head-quarters are at the village of Taungup (population, 1,707), about 6 miles from the mouth of the Taungup river, which flows from the Arakan Yoma westwards into the sea almost opposite the southern extremity of the island of Ramree. With the exception of a few stretches of rice land along the river valleys, the township is a mass of hills cut up towards the coast by creeks. In 1901 it contained 225 villages, and a population of 32,948, compared with 29,088 in 1891. The inhabitants of the eastern hill areas are largely Chins. The area cultivated in 1903–4 was 37 square miles, paying Rs. 40,800 land revenue.

Tāvi.—Petty State in KĀTHIĀWĀR, Bombay.

Tavoy District.—District in the Tenasserim Division of Lower Burma, lying between 13° 16′ and 15° 6′ N. and 97° 46′ and 99° 12′ E., with an area of 5,308 square miles. On the north lies Amherst Dis-

trict; on the south Mergui; on the east the Siamese frontier; and on the west the Bay of Bengal. It is a rugged tract, 150 miles long and 50 miles broad at its widest part, composed entirely of hills, save for the well-cultivated basin of the Tavoy river and a narrow strip along the sea-coast. The hill ranges run generally north and south. One divides the Tavoy river from the sea; a second, farther east, forms the watershed between that stream and the Tenasserim river; while a third, beyond the Tenasserim to the east, rises as a barrier between the District and Siam. The highest point in the District is a peak known as Myinmoletkat (6,800 feet), on the borders of Mergui District. It lies in the central range, as also does Nwalabo ('bullock's hump'), a hill nearly 6,000 feet in height. The Tenasserim in the south and the Tavoy river in the north are the two main waterways. The main branch of the Tenasserim river has its source in Myinmoletkat, and, flowing first northwards, turns sharply to the east at about the latitude of Tavoy town, and thence runs southwards into Mergui District. It is not navigable in the dry season except by canoes. The Tavoy river, which rises in the extreme north of the District, and flows due south past Tavoy town to the sea, is navigable by steamers of light draught up to Tavoy, and thence for about 40 miles by boats. There are no other waterways of importance. About 10 miles off the coast, in the latitude of Tavoy town, are three groups of islands known as the Moscos, rocky and uninhabited, but of economic value as yielding the edible bird's-nest of commerce.

Physical aspects.

The District has never been carefully examined by a geologist. The mountain ranges appear to be granite, probably of Palaeozoic age. The intervening valleys have occasional patches of clay slate, more or less altered by igneous action. The hills along the coast contain on their east side an abundance of micaceous iron ore and clay ironstone; and nearly opposite Tavoy, on the west bank of the river, is an elevated ironstone ridge. The plains are composed of a stiff clay, sometimes highly ferruginous.

The principal timber and other trees are referred to below under the head of Forests. Medicinal plants are said to be very numerous. Besides those dealt with elsewhere, mention may be made of cinnamon, the castor-oil plant, sarsaparilla, and the sea coco-nut, the last said to be useful as an astringent. There are several vegetable dyes.

The wild animals include elephants, rhinoceros, tigers, leopards (the ordinary, the black, and the clouded), the *tsine* or *hsaing* (*Bos sondaicus*), *sāmbar*, hog deer, barking-deer, the Malay bear, hog, and five or six sorts of monkeys. The tapir, though rarely seen, is known to exist, the serow has been shot close to Tavoy, and the orang-outang is reported to have been found in the hills. The birds include peafowl,

the pheasant, and the hornbill. Fish abound in great variety. Crocodiles are numerous in the rivers, and the sea-beach is frequented by turtles.

The climate is on the whole pleasant, the intense heat of the hot season being moderated by sea-breezes. During the cold season the thermometer at midday scarcely ever reaches 92° in the shade, and occasionally in the early morning falls as low as 57°. Between December and February dense fogs prevail in the mornings till about 9 o'clock. In April there are occasional squalls of wind and rain, and about the middle of May violent thunderstorms occur and the south-west monsoon sets in. After this electric disturbances are rare till October, when the rainy season ends in much the same way as it began. Maungmagan, a village on the sea-coast, about 9 miles north-west of Tavoy town, is frequently visited as a sea-bathing resort during the hot months. It boasts of a fine sandy beach and its surroundings are agreeable.

As elsewhere along the coast, the rainfall is very heavy. The average fall, which for the three years ending March, 1904, was 228 inches, is somewhat higher in the north than in the south of the District. At Launglon it has been known to reach 252 inches, the highest recorded in the Province.

History.

Tavoy District has at various times formed a portion of the dominions of the kings of Siam, Pegu, and Ava, but its early history is involved in great obscurity. The first settlers were probably Siamese, but at a very early date a colony of Arakanese are said to have established themselves. These latter have left their mark on the language of the District (Tavoyan dialect), which possesses archaic features of its own. The earliest written accounts of the country state that the Burmese king Narapadisithu, who came rather as a preacher of religion than as a conqueror, founded Kyethlut in Kwedaung Bay, not far from the Tavoy river, in A.D. 1200. The same monarch is credited with the building of the pagoda on Tavoy Point. Anxious to connect their religion with the great Asoka, Buddhist writers assert that, in 315 B.C., that monarch ordered the construction of a pagoda in what is now Tavoy town. Many years after this the country was subject to Siam, and still later to the sovereigns of Pegu, from whom it passed to Burma; but up to a comparatively recent date it suffered continually from Siamese invasions. About 1752 the ruler of Tavoy became an independent prince, and made overtures to the East India Company; but the terms proposed by the Company were too exorbitant from a pecuniary point of view to find acceptance. Soon afterwards (1757), Tavoy again became a province of Siam; but in 1759 it surrendered to Alaungpayā, the great Burmese conqueror, who a few months later was carried, dying, from

Siam to Burma, close to the Tavoy border, to expire within two days' journey of Martaban.

From 1760 until the signing of the Treaty of Yandabo in February, 1826, the country was torn by internal rebellions and attacks from the Siamese. During the first Burmese War, in 1824, an expedition was dispatched against the District, which ended in Tavoy being handed over to Sir Archibald Campbell's troops. In 1829 a revolt broke out, headed by Maung Da, the former governor; but this was speedily suppressed, and since then the District has remained in the undisturbed possession of the British. For some years a body of troops was stationed in Tavoy town; but the District has for many years now been guarded solely by police, who were able, with some help from Rangoon, to suppress a rising which took place in April, 1888.

The most famous pagoda is the Shinmokti, a few miles south of Tavoy town, containing an image, near which are a stone and a banyan-tree, all three supposed to have miraculously floated across the ocean from India. The building is 58 feet high, and 300 feet in circumference at the base. On Tavoy Point, on the right bank of the Tavoy river, is the Shinmaw, only 9 feet high, founded in A.D. 1204, and said to contain a tooth of Gautama. North of Tavoy is the Shindatwe, a shrine of very early date, built on the spot upon which a holy relic of Buddha is said to have alighted after a lengthy flight through the air. In addition to these, there are ten pagodas in the town and suburbs of Tavoy, and nineteen others in the District, all of more or less sanctity, and some supposed to be of great antiquity. The ruins of Old Tavoy or Myohaung stand a few miles to the north of the existing town.

Population.

The population rose from 71,827 in 1872 to 84,988 in 1881, 94,921 in 1891, and 109,979 in 1901. The principal statistics of area and population in 1901 are given below, by townships:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Yebyu	1,842	...	55	12,550	7	+ 11	1,130
Tavoy	2,340	1	64	33,818	14	+ 31	8,469
Zaunglon	335	...	112	33,187	99	+ 22	5,249
Thayetchaung	791	...	91	30,424	38	− 1	4,667
District total	5,308	1	322	109,979	21	+ 16	19,515

During the last decade the population increased by 16 per cent., a rate somewhat below the Provincial average. The District is not one

which attracts any considerable amount of immigration, either Burman or foreign, and the greater part of the increase may be looked upon as attributable to natural factors. TAVOY TOWN, the head-quarters, has a population of 22,371, and stands eighth among the towns of the Province in point of numbers; but the District has no other collection of houses containing a population of over 2,000. As regards density, Tavoy is, after Northern Arakan, Mergui, and Salween, the most thinly populated District of Lower Burma. Nearly the whole population is gathered in the basin of the Tavoy river, which is divided among the four townships, most of it being apportioned between Thayetchaung and Launglon. In all, 96 per cent. of the people are Buddhists and 2 per cent. Christians. The rest are Animists, Musalmāns, or Hindus. About 95 per cent. of the people talk Burmese (the majority using what is known as the Tavoyan dialect, akin to Arakanese), and Karen is widely spoken in the hills.

About 89 per cent. of the people returned themselves in 1901 as Burmans, and 8 per cent. as Karens, the latter occupying the hills in the east and south. More than 1,100 persons were enumerated as Talaings; the remainder were mostly Zairbādis or Chinese. Only 200 of the inhabitants were shown as Siamese, though no doubt much of the population was formerly of that race. The population directly dependent upon agriculture in 1901 was 64,600, or 59 per cent. of the total, as compared with the Provincial percentage of 67. Of these, 26,801 were dependent upon *taungya* (shifting) cultivation alone.

The American Baptist Union has missions for Karens and Burmans. The Tavoy mission was started in 1828, and has 23 churches and 21 schools. The number of native Christians in 1901 was 1,612.

Agriculture.

The District is generally hilly outside the valley of the Tavoy river, and nearly half the cultivators practise *taungya*-cutting, burning the forest and passing on after a crop or two has been taken from the land. In the lowlands the early rice (*kaukkyi*) obtains ample water from the heavy rainfall, and is cultivated as elsewhere in the 'wet' areas of the Province. *Mayin*, or hot-season rice, is grown to a small extent.

The following table gives the main agricultural statistics of the District for 1903-4, in square miles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Yebyu	1,842	22	0.6	4,960
Tavoy	2,340	27	...	
Launglon	335	70	0.4	
Thayetchaung	791	59	...	
Total	5,308	178	1	4,960

Rice is the principal crop, occupying 135 square miles, or three-fourths of the whole area cultivated, in 1903-4. About 44 square miles are planted with fruit or palm trees, of which the areca and the *dani* palm are the most important, the latter occupying 7,000 acres. On the small remaining area cotton, *san*-hemp, cardamoms, tobacco, and coffee are grown. The average extent of a rice holding in the surveyed area is about 7 acres in the case of *kaing* land, and about half an acre in the case of *mayin*. Garden-land holdings range somewhat higher.

The cultivated area has increased steadily since 1880-1, when it was only 117 square miles. Comparatively little use has been made of the Land Improvement and Agriculturists' Loans Acts since 1899, when over Rs. 2,000 was advanced to villagers in the Yebyu township on account of failure of crops.

There are no tanks of importance, nor are there any inland fisheries in the District. Sea-fishing is, however, carried on freely all down the coast, and the fishery revenue yielded Rs. 16,500 in 1903-4. Only about one square mile is irrigated.

Cows and buffaloes of a fairly good quality are largely bred, and goats to a small extent. A few ponies are imported from Siam via Myitta. There are about 90 grazing reserves within the limits of the District, comprising 31 square miles.

Forests, &c.

The chief timber trees of Tavoy are *thingan* (*Hopea odorata*), which grows sometimes to the height of 250 feet and is largely used for boat-building; *pyingado* (*Xylia dolabriformis*), exported to Calcutta for sleepers; *padauk* (*Pterocarpus indicus*) and *kokko* (*Albizzia Lebbek*), ornamental woods in demand in England and America; *pyinma* (*Lagerstroemia Flos Reginae*), and *anan* (*Fagraea fragrans*). Gamboge and camphor trees are found, and the cashew-apple is plentiful. Timber extracted for trade purposes is dragged by elephants to the Tavoy river and thence floated to Tavoy. There are forest revenue stations at Yebyu, Tavoy, and Sinbyubyin, all on the banks of that stream. The 'reserved' area is 960 square miles, and the area of 'unclassed' forests about 4,000 square miles. The revenue of the South Tenasserim Forest division, which includes also Mergui District, was Rs. 53,000 in 1903-4, and the expenditure was a lakh.

Tin is worked to a small extent, about a ton (valued at Rs. 1,700) being exported yearly. The coolies employed in the tin-mining industry are all Burmans, natives of the tin-bearing localities. Salt is manufactured from sea-water, the annual out-turn being between 240 and 280 cwt. A European syndicate is prospecting for gold.

The town of Tavoy is noted for its silk-weaving, and its *longyis* (waistcloths) are well-known throughout Burma for their strength

and permanency of colour. The raw silk used by the local weavers is obtained from Rangoon. One viss (about $3\frac{1}{2}$ lb.) costing Rs. 24, with Rs. 3–12 as wages for spinning, Rs. 4–4 for dyeing, and Rs. 5 for weaving, will make four *longyis*, sold at Rs. 10 each. The number of weavers returned at the last Census was 1,282. There are five rice- and timber-mills, all in Tavoy town. Pottery is manufactured in a quarter of Tavoy called Olokpyin, and a little metal-work is done in the town.

Trade and communications.

The trade of the District passes almost entirely through Tavoy town and Sinbyubyin, rice, salt, and timber being the staples of export. The only land trade route of importance is that which leads from Tavoy eastwards through Myitta, near the Siamese frontier, into Siam. The total value of the exports by this route in 1903–4 was Rs. 2,800, that of imports Rs. 2,400. The principal items of export are manufactured piece-goods, and of import precious stones; but the total trade is insignificant. It is registered at Myitta.

There are 195 miles of metalled roads, of which 187 are maintained from Provincial funds, and 8 from the District cess fund. The latter also maintains 74 miles of unmetalled tracks. The most important highway is that leading from Tavoy town to the Siamese frontier via Myitta, 107 miles. Others are the roads from Tavoy to Sinbyubyin, from Tavoy to Yebyu, and from Kamyawkin to Maungmagan. The Tavoy river is navigable as far as Tavoy town by ships drawing 8 feet. The weekly mail steamer of the British India Steam Navigation Company, running between Rangoon and Mergui, calls at Sinbyubyin near the mouth of the river, and a launch conveys passengers and cargo to Tavoy town, 26 miles farther up-stream. A fortnightly steamer of the same company connects the port with Moulmein, and a coasting steamer plying between Rangoon and Penang calls once in eighteen days each way. There are five licensed ferries.

Administration.

The District is in charge of a Deputy-Commissioner, who is also District Magistrate and District Judge, as well as *ex-officio* Collector of Customs and Port Officer. It is divided into four townships—YEBYU, TAVOY, LAUNGLON, and THAYETCHAUNG—which are in charge of township officers or *myo-oks*, but differs from most Burma Districts in having no subdivisions. Under the *myo-oks* are the rural officials. The number of village headmen is about 200. Tavoy forms, with Amherst and Mergui, a Public Works division, and, with Mergui, a Forest division, the head-quarters of the latter being at Tavoy town.

For judicial purposes the District forms part of the Tenasserim civil and sessions division. Except in the case of the Tavoy township court (which is presided over by a township judge, who sits

fifteen days in the month at Tavoy and fifteen at Mergui), all the judicial work of the District is done by the executive officers, assisted at Tavoy by a bench of honorary magistrates. The Tavoy township judge is invested with Small Cause Court powers with respect to suits of the value of Rs. 50 or less arising in Tavoy town. The crime of the District presents no special features.

The District was settled in 1904–5. The following rates were fixed for a term of fifteen years from July, 1906: on ordinary rice land, Rs. 2 to Rs. 4–8 per acre; on *mayin* rice land, R. 1 to Rs. 2; on garden land, R. 1 to Rs. 5; on miscellaneous cultivation, Rs. 1–8; on *dani* palms, Rs. 3 to Rs. 4; and 2 annas on each solitary fruit tree. The rates on ordinary rice land have been fixed for a term of only five years; at the expiration of that period the minimum rate is to be reduced to 14 annas an acre, while the maximum rate is to be raised to Rs. 6.

The land revenue has been rising steadily during the past two decades. The following table shows its growth as well as the growth of the total revenue since 1880–1, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	1,08	1,30	2,04	2,16
Total revenue . .	2,21	2,53	3,91	4,41

The District cess fund had an income of Rs. 24,800 in 1903–4, chiefly derived from the cess on land revenue; and the main item of expenditure was Rs. 5,000 devoted to education. TAVOY TOWN is the only municipality.

On Reef Island at the mouth of the Tavoy river stands a lighthouse, which consists of a masonry tower 25 feet high, painted white and surmounted by a fixed dioptric white light, visible in clear weather at a distance of 12 miles. The lighthouse was completed in 1883.

The District Superintendent is the only superior police officer. There are 6 police stations and 6 outposts; and the force consists of 2 inspectors, 5 head constables, 15 sergeants, and 192 constables. The number of military police is 96, of whom 64 are stationed at Tavoy town, and the rest at Yebyu and Myitta. The District jail at Tavoy has accommodation for 132 male and 6 female prisoners. The industries carried on in it are carpentry, bamboo and cane-work, mat and coir-rope making, tailoring, polishing, and a little blacksmith's work. The out-turn is sold to the public.

The proportion of persons able to read and write in 1901 was 17·7 per cent. (31·2 males and 4·4 females). The standard of education is thus comparatively low for Burma. The number of pupils in the District schools was 2,498 in 1880–1; 3,772 in 1890–1; 5,149

in 1900–1; and 6,748 in 1903–4, including 1,325 girls. There were 6 secondary, 63 primary, and 169 elementary (private) schools in the last year. The total cost of education in 1903–4 was Rs. 16,900, towards which the Tavoy municipality contributed Rs. 3,000, the District cess fund Rs. 5,000, and Provincial funds Rs. 4,200. The American Baptist Mission has an Anglo-vernacular school for Karen boys and girls.

The only hospital is at Tavoy town, in which 20,661 cases were treated in 1903, including 496 in-patients, and 487 operations were performed. It has 35 beds, and its income is derived almost entirely from municipal funds, which contributed Rs. 4,500 in 1903.

Vaccination is compulsory only within the limits of the Tavoy municipality. In 1903–4 the number of persons successfully vaccinated was 13,754, representing 125 per 1,000 of population.

Tavoy Township.—Township of Tavoy District, Lower Burma, lying between 13° 18′ and 14° 18′ N. and 98° 11′ and 99° 12′ E., with an area of 2,340 square miles. The population was 25,760 in 1891, and 33,818 in 1901. In the latter year it contained one town, TAVOY (population, 22,371), the head-quarters of the District and township; and 64 villages. It was then known as the Central township. The only place of importance besides Tavoy is Myitta (population, 533), in the north-east, near the Siamese border, where there is a station for registering the trade between Burma and Siam. Except for a strip of plain land in the west in the valley of the Tavoy river, the township is a mass of forest-clad hills. Between a third and a fourth of the inhabitants outside the limits of Tavoy municipality are Karens, who inhabit the hill areas in the east. The area cultivated in 1903–4 was 27 square miles, paying Rs. 33,000 land revenue.

Tavoy Town.—Head-quarters of the District of the same name in Lower Burma, situated in 14° 5′ N. and 98° 12′ E., on the left bank of the Tavoy river, 30 miles north of its mouth and 7 from the sea-coast on the west, from which both town and river are separated by a low range of hills. The town is low-lying, and all except the central portion is liable to be flooded at high tides. On the west it is flanked by the river, and towards the south-west rice- and timber-mills extend from the centre of the town along the bank for a distance of about 2 miles. To the north and south stretches the valley of the Tavoy river; to the east a narrow strip of plain land separates the urban area from the outlying spurs of the hill system, of which the Nwalabo peak is a prominent feature. Tavoy is well laid out, with three main thoroughfares parallel to the river. All the Government buildings are in the centre, except the jail and military police barracks, which are situated on higher ground to the east. The town is well wooded throughout and abounds in gardens. The houses of the people are

mostly of timber, with roofs of *dani*, the leaf of the *Nipa* palm. The large open square which formerly existed in the centre of the town has been built over, and there are no traces of the old fort.

The present town of Tavoy was founded in 1751, but it is probable that the province had earlier capitals. The remains of what must have been important cities have been found in various parts of the District, and the ruined site of Old Tavoy or Myohaung has been traced a few miles to the north of the existing town. Comparatively early in the first Burmese War a force was dispatched to seize the southern portion of Tenasserim; and in 1824 Tavoy was occupied without resistance, and has never since passed out of the possession of the British. The town attained its existing dimensions in 1896, when the Letwegyun and Kyaukmaw circles of the Tavoy township were transferred to the Tavoy municipality. Its present area is about 8 square miles.

The population of Tavoy town in 1872 was 14,469. In 1881 it had fallen to 13,372, in 1891 it was 15,099, and by 1901 it had risen to 22,371 persons. The increase during the past decade (numerically greater than that of any other town in the Province except Rangoon) is somewhat remarkable, in view of the fact that there has been nothing in the shape of railway enterprise to promote trade and attract the rural population into municipal limits. Between 1872 and 1881 there was a decrease in population of over a thousand; but since 1881 the prosperity of the town has, if growth ot population is any real guide, been steadily on the increase. The 22,371 persons enumerated in 1901 consisted of 231 Christians, 375 Hindus, 881 Musalmāns, 110 Animists, and 20,774 Buddhists. There has been an increase under each religion since 1891, fairly evenly divided. In the steady growth of its Buddhist population Tavoy differs from all the larger towns of Burma.

The trade of Tavoy, which is not of great importance, is carried on chiefly with the ports of Rangoon, Mergui, and Calcutta, and with the Straits Settlements. The principal exports in 1903–4 were rice, valued at 8 lakhs, sent for the most part to the Straits, and silk waistcloths, valued at 3 lakhs, to Rangoon. Other goods were salt (Rs. 62,000), timber (Rs. 58,000), and *dani* leaves for thatch (Rs. 39,000). The principal imports, mainly from Rangoon, were raw silk, valued at 2½ lakhs; tobacco and piece-goods, each a lakh and a half; and sugar, kerosene oil, twist and yarn, and *til* seed, each about a lakh in value. It is interesting to note that the trade of the port, though not large, is growing. The total value of imports and exports of foreign and coasting trade, which in 1890–1 was 15¾ lakhs, had risen in 1900–1 to 20½ lakhs, and in 1903–4 to 36 lakhs.

Silk-weaving is the main industry of the town, and there were 995 looms in Tavoy in 1903. The manufacture of pottery, cotton-weaving,

and gold- and silver-work are also carried on. The five rice and timber mills employed 140 male adults and 30 female adults in 1904. The out-turn from the rice-mills is exported mainly to the Straits, whereas timber is sent to Rangoon and Calcutta. Tavoy has a municipality, which was constituted in 1887. The receipts and expenditure of the municipal fund during the ten years ending 1901 averaged Rs. 30,000. In 1903–4 the income was Rs. 39,000, of which one-third was derived from the house tax and one-third from market dues. The expenditure was Rs. 33,600, the chief items being conservancy (Rs. 13,000), hospital (Rs. 5,600), and education (Rs. 3,000). The port limits, which were defined in 1875, extend to Tavoy Point at the mouth of the river. The income of the Port fund in 1903–4 amounted to Rs. 3,700.

Tawngpeng (Burmese, *Taungbaing*).—One of the Northern Shan States, Burma, lying between 22° 40′ and 23° 12′ N. and 96° 52′ and 97° 28′ E., with an area of 778 square miles. It is bounded on the north by Möngmit, on the east by North Hsenwi, and on the south and west by Hsīpaw. The State forms a small compact mass of hills with a deeply indented boundary. The Nam Tu river runs through it from north to south, cutting off from the rest a strip on the eastern side, about 10 miles broad and 30 long. This part is fairly level and undulating; west of the Nam Tu the country is a maze of hill ridges, only the valleys in the south-west having sufficient level ground for lowland rice cultivation. The principal industry of the State is the production and manufacture of tea (*see* NORTHERN SHAN STATES). *Le* rice is cultivated in the Möngngaw valley in the south-west of the State, but elsewhere what rice is grown is practically all *taungya*. Of the history of Tawngpeng little is known, and such chronicles as exist are almost wholly legendary. Two successive Sawbwas, Hkun Hsa and Hkun Kyan, rebelled against king Mindon, and both paid for their indiscretion with their lives. The next Sawbwa was murdered by a rival, Kwan Kon, who remained on good terms with Mandalay, but was succeeded by Hkam Möng, a weak-minded ruler, who refused to meet the British in 1887, and was deposed. His son, Ton Möng, was put in his place by the Government in 1888. He died in 1897, and was succeeded by the present Sawbwa. The population in 1901 was 22,681, distributed in 274 villages. The majority of the inhabitants are Palaungs, to which race the Sawbwa belongs. They inhabit the hills west of the Nam Tu, and their total in 1901 was about 16,000. The Shan population is confined for the most part to the valleys on either side of the river, and numbers about 5,000. Kachins, to the number of 1,500, are settled on the hills east of the river, and there is a sprinkling of Lisaws. The revenue consists mainly of *thathameda* and a tax on tea (levied on the bullock-load). In 1903–4 the tea tax brought in Rs. 62,000; *thathameda*, Rs. 40,000; and licence fees of

various kinds, Rs. 8,000; in all Rs. 1,10,000. The expenditure in that year included Rs. 77,000 devoted to the privy purse, Rs. 13,000 spent on administration and salaries, and Rs. 20,000 tribute to the British Government. The capital of the State is at Namhsan (population, 912), a large village situated about 5,000 feet above the sea at the northern end of one of the main hill ridges. It is the head-quarters of an officer who has been recently stationed in Tawngpeng to supervise the Sawbwa's financial affairs. Other important villages in Tawngpeng are Möngngaw in the south-west, Wingmaü in the west, and Saram a few miles north-west of Namhsan.

Taxila.—Ruins in Rāwalpindi District, Punjab. *See* SHĀHDHERI.

Taze.—Western township of Shwebo District, Upper Burma, stretching from the Mu river to the borders of the Upper Chindwin District, between 22° 53′ and 23° 22′ N. and 94° 54′ and 95° 30′ E., with an area of 531 square miles. Its western portions are hilly, its eastern flat. The population was 19,477 in 1891, and 28,382 in 1901, distributed in 152 villages, Taze (population, 1,719), a village in the south-east corner, a few miles west of the Mu, being the head-quarters. In 1903-4 the area cultivated was 49 square miles, and the land revenue and *thathameda* amounted to Rs. 53,900.

Teesta.—River of Eastern Bengal. *See* TĪSTA.

Tehrī State (or Tehrī-Garhwāl).—Native State under the political superintendence of the Government of the United Provinces, lying between 30° 3′ and 31° 18′ N. and 77° 49′ and 79° 24′ E., with an area of 4,200 square miles. It is bounded on the north by the Punjab States of Rāwin and Bashahr, and by Tibet; on the east and south by Garhwāl District; and on the west by Dehra Dūn. The State lies entirely in the Himālayas, and contains a tangled series of ridges with innumerable spurs separated by narrow valleys. The general direction of the main ridges is from north-east to south-west, radiating from a lofty series of peaks on the border of Tibet, which vary in height from 20,000 to 23,000 feet above sea-level. The State contains the sources of both the Ganges and the Jumna, and these two rivers receive the whole drainage. The Ganges rises in a glacier, called Gaumukh, at a height of 13,570 feet, and at first bears the name of Bhāgīrathi. A large affluent called the Jādhgangā or Jāhnavī, which rises in Tibet, joins the Bhāgīrathi at Bhaironghātī. The Bhāgīrathi flows south-west and then south-east, and joins the Alaknandā at Devaprayāg, after which the combined stream is called Ganges. The Alaknandā and Ganges form part of the southern boundary between Garhwāl District and Tehrī State. West of the lofty peak of Bandarpūnch rises the Jumna, which flows south-west and then forms the western boundary of the State. The Sūpin rises north of the same peak, and after receiving the Rūpin assumes the name of TONS

(Northern). JAMNOTRĪ and GANGOTRĪ, near the sources of the two great rivers, are important places of pilgrimage.

Nothing is known of the geological formation of the State, except as the result of single traverses across it, which show the same general structure and composition as in the neighbouring parts of DEHRA DŪN and GARHWĀL Districts.

The flora of the State includes the vast series found in the HIMĀLAYAS, ranging from the sub-tropical species which grow in the outer ranges of low hills to the alpine flowers in the north.

Tigers are found in small numbers in the north of the State, and leopards are common in the west. Black bears and wild dogs occur in some localities. Antelope, *sāmbar* or *jarau*, spotted deer, barking-deer, and musk deer are also found, besides several species of wild goats and goat antelopes.

Meteorological observations are not recorded, but the climate resembles that of Garhwāl District. The valleys and lower hills are subject to a very great range of temperature. Snow falls as low as 4,000 feet in the winter.

The early history of the State is that of GARHWĀL DISTRICT, the two tracts having formerly been ruled by the same dynasty. Parduman Shāh, the last Rājā of the whole territory, was killed in battle, fighting against the Gurkhas; but at the close of the Nepālese War in 1815, his son, Sudarshan Shāh, received from the British the present State of Tehrī. During the Mutiny Sudarshan Shāh rendered valuable assistance to Government. He died in 1859 without legitimate issue, and in accordance with the terms of the treaty the State lapsed; but his eldest illegitimate son, Bhawānī Shāh, was allowed to succeed, and he subsequently received a *sanad* giving him the right of adoption. Bhawānī Shāh died in 1872, and his son and successor, Pratāp Shāh, in 1887. The present Rājā, Sir Kīrti Shāh, K.C.S.I., was installed in 1894. He married a granddaughter of Mahārājā Jang Bahādur of Nepāl.

An ancient trident bearing an inscription stands near the village of Bārāhāt[1], which is locally assigned to some Tibetan Rājā.

The State contains 2,456 villages, but no town proper. Population is increasing rapidly. The numbers at the three enumerations were as follows: (1881) 199,836, (1891) 241,242, and (1901) 268,885. The whole State forms a single *tahsīl*. Tehrī, the capital, is the only place of importance. More than 99 per cent. of the population are Hindus. The low density, 64 persons per square mile, is explained by the mountainous nature of the country. In 1901, 6,020 persons were recorded as able to read and write. The language usually spoken is Central Pahārī.

Almost the entire population is composed of three castes: Rājputs

[1] *Journal, Asiatic Society of Bengal*, vol. v, p. 347.

(161,000), Brāhmans (55,000), and Doms (48,000). The two first are divided into Khas Rājputs and Brāhmans, who are regarded as autochthonous, and Rājputs and Brāhmans descended from emigrants from the plains. There are a few Bhotiās in the north of the State. Agriculture supports 88 per cent. of the total.

There are no Christian missions in Tehrī, and in 1901 only seven native Christians were enumerated.

Cultivation resembles that in the British Districts of GARHWĀL and ALMORĀ. It is practically confined to terraces on hill-sides, and to small alluvial areas in river-beds. Detailed statistics are not available, but the total area cultivated is about 70 square miles. Rice, small millets such as *jhangorā* and *manduā* or *maruā*, and wheat are the staple food-crops; potatoes are also largely grown. A little tea is produced in the west of the State. Irrigation is provided by small channels drawn from streams, about 20 square miles being supplied in this way. The cattle of the State are small and hardy.

The forests of Tehrī are very valuable. An area of 141 square miles, which has been leased to the British Government, yields valuable *chīr* (*Pinus longifolia*) and other timber. The other trees are *deodār*, *sāl* (*Shorea robusta*), and various kinds of oak and pine. Boxwood is common in the north of the State, but is little used. Since 1884 a forest service has been organized on the same lines as in British India, with excellent results. In 1903–4 the forest revenue amounted to 1·75 lakhs, while the expenditure was only Rs. 23,000.

Tehrī exports timber, forest produce, *ghī*, rice, and potatoes, and imports piece-goods, sugar, salt, iron, brass vessels, pulses, spices, and oil. A little borax passes through the State from Tibet, and salt is imported from the same country. There are no manufactures, except small industries of blanket-weaving and tanning. Mussoorie is the chief mart supplying the State. Timber is rafted down the rivers; but other merchandise is carried entirely on pack-animals or by coolies.

There are about 263 miles of road, but these are not practicable for wheeled traffic. The chief lines are from the capital to Mussoorie, to Hardwār, to Devaprayāg, and to Gangotri.

The Rājā has full powers within the State, and the Commissioner of Kumaun is the Political Agent to the Government of the United Provinces for Tehrī. Executive authority is vested in an officer called the Wazīr. Revenue cases are disposed of by a *tahsīldār* and three Deputy-Collectors, one of the latter being stationed at Rāwain. There are two magistrates of the third class, sitting at Devaprayāg and Kīrtinagar; the Deputy-Collectors have ordinarily powers of the second class; and the Wazīr and one magistrate exercise first-class powers. Sentences of death are passed by the Rājā alone. Crime is very light. Civil suits are heard by the Deputy-Collectors; and there are two civil

courts in addition. Appeals lie in all cases to the Rājā, who frequently transfers them to the Wazīr or to the first-class magistrate. A limited jurisdiction is exercised by the *muāfīdārs* of SAKLĀNĀ.

The land revenue and total revenue of the State for a series of years are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	85	78	83	95
Total revenue . .	1,13	1,58	2,80	4,25

The chief items in 1903-4 were: forests (1·75 lakhs), land revenue and cesses (Rs. 95,000), stamps, excise, and presents (Rs. 65,000), fines (Rs. 24,000), and interest on promissory notes and loans (Rs. 15,000). The expenditure of 2·75 lakhs included: privy purse (1·2 lakhs), administration (Rs. 39,000), and forests (Rs. 23,000).

No proprietary rights are recognized in land except in the case of the Saklānā fief. Land is divided into irrigated and unirrigated, the latter being further divided into four classes according to quality. Separate rates are assessed on each class; the rates have not been revised for many years. The chief items of miscellaneous revenue are tolls on pilgrims carrying water from Gangotrī, and excise. The latter consists of licence fees for the sale of country liquor and hemp drugs.

The principal public buildings are the Rājā's palace, the courts and offices, and the jail. The expenditure on roads and buildings in 1903-4 amounted to Rs. 30,000.

An infantry force, 113 strong, is maintained, and the State possesses two cannon, which are used only on ceremonial occasions.

A small force of police is maintained at Tehrī, Kīrtinagar, and Devaprayāg. Outside of these places police duties are performed by village headmen, who report to the *patwāris* as in the British Districts of the Kumaun Division. A new jail has recently been constructed capable of holding 250 prisoners, but the number at any one time is only about 20.

In 1901 only 2·2 per cent. of the population (4·4 males and 0·1 females) were able to read and write. The number of schools rose from 3 with 203 pupils in 1880-1 to 5 with 303 pupils in 1900-1. In 1903-4 there were 13 schools with 512 pupils. The expenditure was Rs. 8,600.

Two hospitals are maintained by the State, at which 9,000 patients were treated in 1903, including 64 in-patients, and 43 operations were performed. The total expenditure was Rs. 4,000.

Although vaccination is not compulsory, its benefits are thoroughly appreciated, and 10,000 persons were vaccinated in 1903-4, representing 38 per 1,000 of population.

[*Annual Administration Reports.*]

Tehrī Town.—Capital of the State of Tehrī, United Provinces,

situated in 30° 23′ N. and 78° 32′ E., at the junction of the Bhāgirathi and Bheling rivers. Population (1901), 3,387. Tehrī stands at an elevation of 2,278 feet above the sea, and in the summer great heat is experienced. The Rājā then resides at Pratāpnagar, which stands on a ridge 8,000 feet above the sea, at a distance of about 9 miles. Tehrī was a small village when, in 1815, Rājā Sudarshan Shāh took up his residence there. It occupies the tongue of land between the two rivers, three-quarters of a mile in length and half a mile in breadth. The bazar lies in an old river bed, which divides the town into two portions. All the courts, the dispensary, and the school are built on a ridge to the south, while the members of the ruling family live on a ridge to the north. On a still higher ridge stands the Rājā's palace, which commands the whole town. There are several temples and *dharmsālas* for the accommodation of pilgrims. About Rs. 4,000 is raised annually from octroi. Tehrī is the chief commercial centre in the State, and there is a busy market at which the products of the plains and imported goods are sold. The high school has 220 pupils.

Tejpura.—Petty State in MAHĪ KĀNTHA, Bombay.

Tekāri Rāj.—Estate in Gayā District, Bengal. The Tekāri Rāj was founded by a small landed proprietor, named Dhīr Singh, at the beginning of the eighteenth century. His son, Sundar Singh, a Bābhan, took advantage of the confusion created by the invasion of Nādir Shāh in 1739 to lay hands on all property within his reach that he was strong enough to keep. The title of Rājā was conferred on him by Muhammad Shāh, emperor of Delhi, as a reward for the assistance he rendered to Ali Vardī Khān, *Sūbahdār* of Bengal and Bihār, in resisting an invasion of the Marāthās. His adopted son Buniād succeeded him, but was treacherously drowned by Kāsim Alī in 1762 in revenge for his allegiance to the British. At the time Buniād's son, Mitrājīt, who was only a few months old, was with difficulty saved from Kāsim Alī's emissaries. After Kāsim Alī's defeat at the battle of Buxar, Mitrājīt was made over by Dalīl Singh, his father's *dīwān*, in whose charge the boy had been placed, to the British commanding officer. He was subsequently restored to his estates and became a stanch friend to the British, assisted in quelling the Kolhān rebellion, and was honoured with the title of Mahārājā. He died in 1840, when the Rāj was divided between his two sons, the elder, Hit Nārāyan, getting a 9 annas share, and the younger, Mod Nārāyan, 7 annas.

Five years later Hit Nārāyan received the title of Mahārājā; but being a man of religious turn of mind, he became an ascetic and left his vast property in the hands of his wife, Mahārānī Indrājīt Kunwar, who with her husband's consent adopted Mahārājā Rām Nārāyan Krishna Singh as her son, and on her death left the property to his

widow, Mahārānī Rājrūp Kunwar. The latter appointed as her successor her daughter, Rādheswarī Kunwar, who died in 1886, leaving a minor son, Mahārāj Kumār Gopāl Saran Nārāyan Singh. The 9 annas share of the Tekāri estate was brought under the management of the Court of Wards on his behalf, and remained under its charge till 1904. During this period, much has been done for the development of the resources of the property. As many as eighteen irrigation systems have been taken in hand, which have resulted in an increase to the rent-roll of over half a lakh of rupees. The two most important of these are the Jāru canal and Jamu *pain* in the Chākand *mahāl*. The former added Rs. 20,000 to the rent-roll, while the expenditure incurred was only Rs. 5,000; and by the improvement of the latter, at a trifling expenditure, the income of the *mahāl* was increased by Rs. 10,000 per annum. This portion of the estate was brought under settlement between the years 1893 and 1898, when it was found to contain 551 villages with a total area of 309 square miles. More than two-thirds of it is under cultivation, and nearly half of the cultivated area is irrigated; the chief crop is winter rice. Closely connected with the fact that irrigation is required over large tracts, and that the necessary works can only be constructed and maintained at the landlord's expense, is the prevalence of the *bhaoli* system of produce rents (*see* GAYĀ DISTRICT), which alone can furnish the necessary incentive to the landlord. About 70 per cent. of the cultivated lands is held on this system; in the rest of the estate the average cash rent per acre is Rs. 4–9 for ryots holding at fixed rates, Rs. 4–6 for occupancy ryots, and Rs. 2–8 for non-occupancy ryots, the average size of the holdings of the three classes of tenants being 4·1 acres, 3·1 acres, and 1·3 acres respectively. The current demand for land revenue and cesses in 1903–4 was 2 lakhs and Rs. 60,000 respectively. The rent-roll is about 7·34 lakhs; but it fluctuates greatly from year to year, owing to so much of the amount being payable in kind.

The 7 annas share of the estate, which, as already stated, was held by Mod Nārāyan Singh, passed on his death to his two widows, who transferred the property in 1870 to a nephew of their late husband, Bābu Rām Bahādur Singh. The latter received the title of Rājā in 1888, but died before being invested with the *khilat* and was succeeded by a granddaughter. On her death six years later, the estate devolved on her daughter, Rājkumāri Bhubanesvar Kunwar, who is still in possession of it, though, being a minor, she is under the guardianship of her grandmother. The 7 annas share contains 715 villages, with an area of 523 square miles; the rental is about 6 lakhs.

[*History of the Tekāri Rāj* (Calcutta, 1880); C. J. Stevenson-Moore, *Final Report on the Survey and Settlement Operations in the Tekāri Wards Estate* (Calcutta, 1899).]

Tekāri Town.—Town in the head-quarters subdivision of Gayā District, Bengal, situated in 24° 56′ N. and 84° 50′ E., on the left bank of the Morhar river, about 16 miles north-west of Gayā town. The population fell from 11,532 in 1891 to 6,437 in 1901, owing to a furious outbreak of plague at the time of the Census and the consequent general exodus of the inhabitants. The town is noted as containing the seat of the TEKĀRI RĀJ. It was constituted a municipality in 1885. The income during the decade ending 1901–2 averaged Rs. 8,800, and the expenditure Rs. 7,700. In 1903–4 the income was Rs. 6,700, mainly from a tax on houses and lands; and the expenditure was Rs. 6,100.

Tekkali Tahsīl.—*Zamīndāri tahsīl* in the south-east of Ganjām District, Madras, consisting of the Tarla *zamīndāri* and several other proprietary estates, and lying between 18° 30′ and 18° 53′ N. and 84° 9′ and 84° 31′ E., on the coast of the Bay of Bengal, with an area of 275 square miles. The population in 1901 was 124,626, compared with 115,553 in 1891. The *tahsīl* contains one town, TEKKALI (population, 7,557), the head-quarters; and 350 villages. The demand for land revenue and cesses in 1903–4 was Rs. 56,500. It is the driest area in the District, chiefly depending upon rainfall and rain-fed tanks. The soil is generally fertile, but owing to the want of sufficient irrigation the crops occasionally fail.

Tekkali Town.—Town in the Tekkali *zamīndāri tahsīl* of Ganjām District, Madras, situated in 18° 36′ N. and 84° 14′ E., on the Parlākimedi light railway and 5 miles off the trunk road. It is also called Raghunāthapuram in memory of Raghunāth Deo, an ancient proprietor of the Tekkali estate. Population (1901), 7,557. It is the head-quarters of the deputy-*tahsīldār* and of the proprietors of the Pāta Tekkali and Nandigam estates. A town hall has been built to commemorate the coronation of the King-Emperor.

Teliāgarhī.—Pass in the Santāl Parganas District, Bengal, lying between the Rājmahāl hills on the south and the Ganges on the north, and formerly of great strategic importance as commanding the military approaches to Bengal. The ruins of a large stone fort still exist, through which the East Indian Railway passes; the fort, which seems never to have been completed, was constructed in the eighteenth century by a Teli *zamīndār* who was forcibly converted by the Muhammadans.

Telingāna (*Telingā*, *Trilinga*, i.e. the three *lingams* of Siva at Kālahasti, Srīsailam, and Drākshārāma. The term originally denoted the tract of country in which these three famous temples were situated).—A name applied vaguely by the Muhammadans to the country of the Telugus, in the north-eastern portion of the Madras Presidency. Its northern boundary was apparently the Godāvari river,

which separated it from the kingdom of KALINGA. A somewhat more precise name for it was Andhra, but this was sometimes used to include Kalinga and the other provinces which the Andhra kings conquered. The Peutingerian Tables, presumed to be earlier than Ptolemy, omit all mention of Kalinga, but speak of *Andrae Indi.* Ptolemy (A.D. 150) mentions Kalinga but not Andhra. The Purānas mention both, as do Pliny and Hiuen Tsiang (A. D. 630). At the latter date, Andhra was recognized as one of the six great divisions of the South. The Andhras were Buddhists by religion, but patronized Brāhmans as well. Their curious leaden coins are still found in considerable numbers in the valley of the Kistna. For the Andhras, *see* History of BOMBAY, BERĀR, and MYSORE.

Tellicherry Subdivision.—Subdivision of Malabar District, Madras, consisting of the KOTTAYAM, CHIRAKKAL, and KURUMBRANĀD *tāluks.*

Tellicherry Town (*Talacheri*).—Head-quarters of the Kottayam *tāluk* of Malabar District, Madras, situated in 11° 45′ N. and 75° 29′ E., on the coast, 42 miles north of Calicut, and 457 miles by rail from Madras city. Besides the divisional and *tāluk* offices, the town contains the District Court of North Malabar, a church, a second-grade college founded by Mr. Brennen in 1862, a branch of the Bank of Madras, Roman Catholic and German Protestant mission establishments, and the old fort of the East India Company, now used for public offices.

Tellicherry does not appear to have been of any importance before the end of the seventeenth century, when the East India Company established a factory here with the object of commanding the pepper trade of North Malabar. The site, which had previously been occupied by a French mud fort, was granted by the Kolattiri Rājā in 1683 or 1684. In 1708 the Rājā was induced to build the Tellicherry fort, which he handed over to the Company for the protection of their factory; and during the first half of the eighteenth century the factors obtained from various Rājās many small grants of land with administrative privileges within them. They also secured the monopoly of the trade in pepper and cardamoms in Kolattanād, Kadattanād, and Kottayam. The factory thus became the principal British trading station on the West Coast. The growth of its importance is illustrated by a treaty dated 1737, by which the Kolattiri Rājā agreed to be guided by the 'Sāhib English Company' in all his transactions with European nations, and by an agreement dated 1741, in which the Randattara district was mortgaged to the Company, who thereby became directly concerned in its administration. In the struggle with France, Tellicherry was the centre of the successful opposition offered to La Bourdonnais on the West Coast; but during the early Mysore Wars the Company's operations were narrowed, and

in 1766 the factory was reduced to a residency. In 1780 the town was besieged by Haidar's general Sardār Khān, but after a two years' struggle the siege was eventually raised in 1782 by the arrival of relief from Bombay under Major Abington. Tellicherry then became the base for the operations above the Ghāts, until it was superseded as a military post by Cannanore.

At present Tellicherry ranks as the third port of Malabar. The value of the imports in 1903–4 was 40 lakhs, and of the exports 103 lakhs. It is the chief outlet for the pepper and coffee grown on the Ghāts; but the traffic in both has declined during the decade, the value of the coffee exports having fallen from 66 lakhs in 1890–1 to 33 lakhs in 1900–1, and of the pepper from 29 lakhs to 25 lakhs. The trade in sandal-wood and coco-nut products has, however, increased. The imports consist chiefly of rice from Bengal and Burma, and coffee and pepper from neighbouring ports. The population of the town in 1901 was 27,883 (15,252 Hindus, 10,958 Muhammadans, and 1,671 Christians). The municipality was created in 1869. The income during the decade ending 1900 averaged Rs. 44,000, and the expenditure nearly Rs. 45,000, of which 39 per cent. was laid out on education. In 1903–4 the income and expenditure were Rs. 50,900 and Rs. 51,000 respectively, the chief receipts being from the taxes on houses and lands and from school fees.

Tenāli Tāluk.—Subdivision and *tāluk* of Guntūr District, Madras, formerly known as Repalle. It lies on the right bank of the Kistna, and extends between 15° 45′ and 16° 26′ N. and 80° 31′ and 80° 54′ E., from the sea to within a few miles of the Sītānagaram and Mangalagiri hills, with an area of 644 square miles. The population in 1901 was 288,127, compared with 222,757 in 1891. TENĀLI, on the East Coast Railway, the head-quarters, is a Union of 10,204 inhabitants; and there are 150 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 15,73,000. With the exception of a slight sandstone ridge at Kolakalūr, the *tāluk* is wholly composed of river alluvium, and in fact lies below flood-level and needs to be protected by embankments. Almost the whole is irrigated by channels from the Kistna river, and it is the richest *tāluk* in the Presidency. Except along the canals and the few roads, travelling is difficult in dry weather, and quite impossible throughout the greater part of it during the monsoons.

Tenāli Town.—Head-quarters of the *tāluk* of the same name in Guntūr District, Madras Presidency, situated in 16° 15′ N. and 80° 38′ E., on the East Coast Railway. Population (1901), 10,204. Since the advent of the railway, new streets have been laid out and houses built, and the town gives promise of further considerable extension. In the temples at Tenāli are some inscriptions which have not yet been

deciphered; and the town is reputed to be the birthplace of Garlapati Rāmalingam, one of the eight poets who adorned the court of king Krishna Deva of Vijayanagar.

Tenasserim Division.—The southernmost Division of Lower Burma, lying between 9° 58′ and 19° 29′ N. and 95° 48′ and 99° 40′ E. On the north it is conterminous with Upper Burma; on the east with Karenni and Siam; on the west it is bounded by the Pegu Division, the Gulf of Martaban, and the Bay of Bengal; and in the south it borders on the Malay Peninsula. While its length from north to south exceeds 500 miles, its width is seldom greater than 100 miles. Towards the south it tapers to Victoria Point, extending along the narrowest part of the Malay Peninsula, in one place at a distance of only 10 miles from the Gulf of Siam. The islands belonging to the Division extend farther south than the mainland, as far as 9° 38′ N. The Division comprises six Districts, four—namely, MERGUI (the southernmost), TAVOY, AMHERST, and THATON—lying along the coast, and SALWEEN and TOUNGOO (the northernmost) in the interior.

The population of the Division, which has its head-quarters at Moulmein, was 576,977 in 1872, 772,620 in 1881, 912,051 in 1891, and 1,159,558 in 1901. Its distribution by Districts in 1901 is shown below:—

District.	Area in square miles.	Population, 1901.	Land revenue, 1903-4, in thousands of rupees.
Toungoo . . .	6,172	279,315	6,35
Salween . . .	2,666	37,837	24
Thaton . . .	5,079	343,510	11,39
Amherst . . .	7,062	300,173	6,96
Tavoy . . .	5,308	109,979	2,16
Mergui . . .	9,789	88,744	1,66
Total	36,076	1,159,558	28,76

The Division contains 4,663 villages and 8 towns, the more important of the latter being MOULMEIN (population, 58,446), TAVOY (22,371), TOUNGOO (15,837), THATON (14,342), and MERGUI (11,987). Of these, the first two are trading centres of considerable importance. The predominant race are the Burmans, who numbered 459,637 in 1901, and are distributed throughout the Division. The Karens (297,084), are also widely diffused, though they are not found as a rule in the tracts near the sea. Talaings (practically confined to Thaton and Amherst) numbered 208,694. Taungthus form a considerable portion of the population of Thaton District, and in the Division as a whole number 41,913. Shans, who inhabit Toungoo District chiefly, were returned in 1901 as numbering 18,591. Siamese live in

the border country in the south, and the islands of the Mergui Archipelago are the haunt of the vagrant Salons. Divided according to religion, the population of the Division was composed in 1901 of 993,300 Buddhists, 44,840 Animists (mostly Karens), 37,524 Musalmāns, 45,435 Hindus, and 38,269 Christians (in great part Karen converts). Of the Christians, 36,250 were natives. The representatives of other religions were numerically insignificant.

Unlike the Arakan Division, Tenasserim was at no time of its known history a political entity. At the accession of Wariyu, king of Martaban, it was partly Burmese and partly Siamese territory, with the Salween river as boundary. Wariyu, however, extended his sway in the thirteenth century over the greater part of the present Division. Ceaseless struggles ensued in subsequent years between the Talaing and Siamese kingdoms, the latter gaining all but the present Toungoo District in the seventeenth century. The rise of Alaungpayā, however, put an end once and for all to the Siamese power. In 1826 the country south of the Salween was ceded to the British by the Treaty of Yandabo, and the remainder—Toungoo, Salween, and part of Thaton—was occupied after the second Burmese War in 1852.

Tenasserim Township.—Easternmost township of Mergui District, Lower Burma, and the only one without a sea-board. It lies between 11° 11′ and 13° 28′ N. and 98° 51′ and 99° 40′ E., with an area of 4,033 square miles. It is a stretch of very hilly jungle country, consisting of the basins of the Great and Little Tenasserim rivers. The population was 8,385 in 1891, and 10,712 in 1901, of whom 43 in every hundred spoke Burmese, 40 Karen, and 16 Siamese. The Burmese spoken is much purer than in Mergui, perhaps owing to there being a large number of the descendants of Alaungpayā's army of invasion. There are 114 villages and hamlets, including TENASSERIM, the head-quarters. The area cultivated in 1903–4 was only 22 square miles, of which rather more than half was under rice, and the rest orchards and palm groves. The land revenue amounted to Rs. 20,500.

Tenasserim Village (Burmese, *Taninthayi*).—Head-quarters of the township of the same name, in Mergui District, Lower Burma, situated in 12° 6′ N. and 99° 3′ E., at the confluence of the Great and Little Tenasserim rivers, 45 miles up-stream from Mergui. The village is on low ground, on the site of the ancient city. On a height above it is the courthouse, commanding a fine view of both rivers and the forest-clad hills around. For several hundred years Tenasserim was the principal port of Siam, and the gateway of the most direct route to the Far East, commodities being brought to it by sea from India and the Persian Gulf to meet those carried overland from Siam and China. The elephant mart is still pointed out across the river, and there are

remains of walls enclosing an area of 4 square miles. In the centre of this enclosure stands a granite pillar, which is variously ascribed to the Siamese, who are said to have founded the city in 1373, and to the Burmese conqueror Alaungpayā, who destroyed it on his victorious march through Siam in 1759. It is much visited by women, who plaster it with gold-leaf. On the same hill as the courthouse are two ancient pagodas, near one of which was recently found a stone inscription commemorating the building of the pagoda by king Byinnya Ran, who reigned at Pegu from 1491 to 1526. The village now contains barely a hundred houses.

Tenkarai.—Former name of a *tāluk* in Tinnevelly District, Madras, now called SRĪVAIKUNTAM.

Tenkarai.—Town in Madura District, Madras. *See* PERIYAKULAM.

Tenkāsi Tāluk.—*Tāluk* in Tinnevelly District, Madras, lying between 8° 49′ and 9° 9′ N. and 77° 13′ and 77° 38′ E., at the foot of the Western Ghāts, with an area of 374 square miles. The population in 1901 was 174,430, compared with 154,940 in 1891, the density being 466 persons per square mile. It contains three towns, TENKĀSI (population, 18,128), the head-quarters, KADAIYANALLŪR (13,939), and SŪRANDAI (11,810); and 92 villages. In physical features it resembles on a smaller scale the neighbouring *tāluk* of Ambāsamudram. It is well watered by the Chittār, and the affluents of this river are crossed by numerous anicuts, or dams, feeding irrigation channels and tanks. The demand for land revenue and cesses in 1903–4 amounted to Rs. 2,87,000.

Tenkāsi Town (*Ten*, 'south,' and *Kāsi* = Benares).—Head-quarters of the *tāluk* of the same name in Tinnevelly District, Madras, situated in 8° 58′ N. and 77° 19′ E., 33 miles from Tinnevelly town, with which it is now connected by the branch line of the South Indian Railway from that place to Quilon, and on the main road from Tinnevelly to Travancore through Ariankāvu. It is a Union, with a population (1901) of 18,128, and is a busy trade centre. The place is of great sanctity, as appears from its name, and possesses a fine temple containing some excellent sculptures. Three miles from Tenkāsi is situated the famous waterfall and sanitarium of KUTTĀLAM.

Teonthar Tahsīl.—*Tahsīl* of the Rewah State, Central India, lying between 24° 45′ and 25° 12′ N. and 81° 16′ and 81° 58′ E., to the north of the Kaimur range, with an area of 816 square miles. The soil is of more than average fertility, and a certain amount of poppy is grown. The *tahsīl* is divided into two sections by the eastern extension of the Pannā range known locally as the Binjh Pahār, two-thirds lying in the fertile plain below the range. The Tons river and some tributary streams leave the high-level plateau in a series of magnificent cascades at Piawan, Purwa, Chachai, Kevati,

and Biloni. The population was 139,697 in 1891, and 105,154 in 1901, giving a density of 129 persons per square mile. The *tahsīl* contains 505 villages, the head-quarters being at TEONTHAR. The land revenue is 3·3 lakhs.

Teonthar Village.—Head-quarters of the *tahsīl* of the same name in Rewah State, Central India, situated in 24° 59′ N. and 81° 41′ E., 30 miles by a fair-weather road from Dabhaura station on the East Indian Railway. Population (1901), 1,593. A school and a dispensary are situated in the place.

Ter.—Town in Osmānābād District, Hyderābād State. *See* THAIR.

Terakanāmbi.—Town in the Gundalpet *tāluk* of Mysore District, Mysore, situated in 11° 49′ N. and 76° 47′ E., 7 miles east of Gundalpet. Population (1901), 2,597. The town is evidently of great antiquity, though its early history is somewhat obscure. There is a general agreement that its name was formerly Trikadambapura, and that it grew out of a village called Kūdugallūr, where the *kūdugallu* or 'boundary stones' of three great countries met. On the point of junction a temple to Trikadamba was erected, it is said, in the sixth century. It probably marked the common boundary of the Ganga, Kerala, and Kadamba territories. After the Hoysalas, the early Vijayanagar kings added to the city, and the chiefs of Ummattūr held it. It was taken by the Rājā of Mysore in 1624. The fort was destroyed by the Marāthās about 1747. There are many deserted temples and disused tanks. Krishna Rājā III removed the principal god to Mysore, and the importance of the town has been superseded by Gundalpet.

Terdal.—Head-quarters of the subdivision of the same name in Sāngli State, Bombay, situated in 16° 30′ N. and 75° 5′ E., on the right bank of the Kistna river. Population (1901), 6,125. Terdal is a large trade centre. The weaving of *sāris*, *dhotīs*, and blankets is the chief local industry, and there was formerly a considerable trade in copper and brass vessels. The temples of Prabhuswāmi and Nemnāth (Jain), built in 1187, are the most important. Terdāl is administered as a municipality, with an income of Rs. 3,000, and contains a dispensary. Formerly it was a walled town, but the battlements are now in ruins.

Teri Tahsīl.—*Tahsīl* of Kohāt District, North-West Frontier Province, lying between 32° 48′ and 33° 44′ N. and 70° 33′ and 72° 1′ E., with an area of 1,616 square miles. The population was 94,363 in 1901, and 85,460 in 1891. The *tahsīl* contains 166 villages, its head-quarters being at a village of the same name. The land revenue and cesses in 1903–4 amounted to Rs. 95,000. Teri is inhabited by the Khattak tribe of Pathāns, whose present chief, Khān Bahādur Abdul Ghafūr Khān, Khān of Teri, holds the whole *tahsīl* in *jāgīr*

at a quit-rent of Rs. 20,000 in perpetuity, while as between the Khān and the *zamīndārs* the demand is revised when the term of each settlement expires. The country, though hilly, is fairly well cultivated. The Khattaks are a fine race, who make excellent soldiers; and though naturally wild and impatient of control, they are settling down under British rule into peaceable agriculturists and carriers.

Tezpur Subdivision.—Subdivision of Darrang District, Eastern Bengal and Assam, lying between 26° 31′ and 27° 0′ N. and 92° 19′ and 93° 47′ E., with an area of 2,173 square miles. The subdivision consists of a narrow strip of land between the Brahmaputra and the Himālayas, a large portion of which is still uncultivated, the density in 1901 amounting to only 77 persons per square mile. The total population recorded at that Census was 166,733, or nearly 40 per cent. more than the figure for 1891, 119,490. This rapid increase is chiefly due to the tea industry, and more than a third of the population live on the plantations. The country a little to the north of Tezpur town is particularly suitable for the growth of tea; and in 1904 there were 61 gardens with 29,001 acres under plant, which gave employment to 71 Europeans and 38,814 natives. On the expiry of their agreements, many of the coolies settle down to cultivation in the villages, and the subdivision has to a great extent been colonized by this agency. The foot of the hills is clothed with evergreen forest, nearly 300 square miles of which have been declared Government Reserves, but the trade in timber is at present inconsiderable. The average rainfall at Tezpur town is 73 inches in the year, while nearer the hills it is between 90 and 100 inches. The subdivision contains one town, TEZPUR (population, 5,047), the head-quarters of the District and subdivision; and 492 villages. The assessment for land revenue and local rates in 1903–4 amounted to Rs. 3,81,000. Tezpur differs materially from Mangaldai, the other subdivision of Darrang; for the last twenty years it has been healthy and progressive, while Mangaldai has steadily receded.

Tezpur Town. — Head-quarters of Darrang District, Eastern Bengal and Assam, situated in 26° 37′ N. and 92° 47′ E., on the right bank of the Brahmaputra. The town is small, but is steadily growing in size. Population (1901), 5,047. Communications with the outside world are maintained chiefly by the river steamers which ply between Calcutta and Dibrugarh; but the north trunk road passes through the town, and a light railway runs from Tezpur *ghāt* to Bālipāra, about 20 miles north. Tezpur is said to have been the capital of a mythical Hindu prince, Bāna Rājā, who engaged in a sanguinary conflict with Krishna. His palace is popularly believed to have stood on a site now occupied by the Deputy-Commissioner's office, and numerous carved stones and pillars are found lying about

the town. A little to the west are the ruins of a large stone temple which was evidently erected many centuries ago. The material employed was granite, and some of the shafts, which are 8 feet high and 5½ feet in circumference, were hewn from a single block of stone. In its original condition this temple must have been a fine example of the mason's art; but it has been utterly destroyed, and hardly one stone is left standing upon another. The town has been laid out with great taste and judgement, and presents a pretty and park-like appearance. The houses of the European residents are built on low hills along the river front, from which on a clear day a magnificent view is to be obtained of the Himālayan snows. The native quarter lies farther away. Tezpur is the head-quarters of the District staff, and, in addition to the usual public buildings, contains a lunatic asylum, a hospital with 40 beds, and a jail with accommodation for 310 persons. The convicts are principally employed in weaving, bamboo and cane work, oil-pressing, and *surkhi*-pounding. The town was formed into a municipality in 1893. The municipal receipts and expenditure during the nine years ending 1902–3 averaged Rs. 17,000. In 1903–4 the income was Rs. 17,000, chiefly derived from fees from pounds and markets (Rs. 5,100) and a grant from Provincial revenues (Rs. 5,000), while the expenditure of Rs. 16,000 included conservancy (Rs. 5,300) and public works (Rs. 5,000). There are no manufactures of any importance, but the bazar contains the warehouses of several substantial merchants who sell grain, piece-goods, salt, and oil, and buy rubber, mustard, and other country produce. The chief educational institution is a high school, which in 1903–4 had an average attendance of 189 boys. A small detachment of military police is stationed in the town, and 101 members of the Assam Valley Light Horse are resident in the District.

Thabaung.—Northernmost township of the Bassein subdivision of Bassein District, Lower Burma, lying between 16° 35′ and 17° 16′ N. and 94° 23′ and 95° 5′ E., and skirted by the Bay of Bengal on the west, with an area of 1,118 square miles. The western half is cut up by the spurs of the Arakan Yoma, but the rest is a dead level. It contains 440 villages. The population was 38,924 in 1891, and 47,802 in 1901, nearly a fourth being Karens. The head-quarters are at Thabaung (population, 686), about 30 miles north of Bassein town, on the right bank of the Bassein river. In 1903–4 the area under cultivation was 81 square miles, paying a land revenue of Rs. 1,13,000.

Thabeikkyin Subdivision.—Subdivision of the Ruby Mines District, Upper Burma, comprising the two river-side townships of THABEIKKYIN and TAGAUNG.

Thabeikkyin Township.—River-side township in the south-western corner of the Ruby Mines District, Upper Burma, lying be-

tween 22° 42′ and 23° 18′ N. and 95° 58′ and 96° 20′ E., with an area of 688 square miles. The population was 8,123 in 1891, and 9,787 in 1901, distributed in 74 villages, and is almost exclusively Burman. Thabeikkyin (population, 1,554), a village on the left bank of the Irrawaddy, 130 miles above Mandalay, the terminus of the metalled road from Mogok to the river, is the head-quarters. The greater part of the township consists of undulating country, gradually rising from the Irrawaddy to the foot of the Ruby Mines mountains. About 3,000 acres were under cultivation in 1903–4, and the land revenue and *thathameda* amounted to Rs. 10,000.

Thabyegan.—Township in the Hanthawaddy District of Lower Burma, lying between 16° 42′ and 16° 59′ N. and 96° 17′ and 96° 41′ E. Since 1901 its limits have been curtailed; its area in 1903 was 314 square miles, and its population, according to the Census of 1901, was 51,390, living in 155 villages. The head-quarters are at the village of Thabyegan (population, 1,320), on the Pagandaung creek, about 2 miles from where that stream flows into the Pegu river. The area cultivated in 1903–4 was 225 square miles, paying Rs. 4,37,000 land revenue.

Thair (*Ter*).—Town in the District and *tāluk* of Osmānābād, Hyderābād State, situated in 18° 19′ N. and 76° 9′ E., on the Tirna river, 12 miles north-east of Osmānābād. Population (1901), 7,327. There are some very interesting remains, said to be connected with the ancient city of Tagara. It contains a police station and a school, and is composed of twelve *wādīs* or hamlets, being really an overgrown village. A project is under consideration for the construction of a canal from the river close by.

[J. F. Fleet, *Journal, Royal Asiatic Society* (1901); H. Cousens, *Archaeological Survey of India, Annual Report* (1902–3), p. 195.]

Thakeswari.—Place of pilgrimage in Goālpāra District, Eastern Bengal and Assam. *See* TUKRESWARĪ.

Thākurbāri. — Place of pilgrimage in Sylhet District, Eastern Bengal and Assam. *See* DHĀKĀDAKSHIN.

Thākurdwārā Tahsīl.—Northern *tahsīl* of Morādābād District, United Provinces, conterminous with the *pargana* of the same name, lying between 28° 56′ and 29° 16′ N. and 78° 39′ and 78° 55′ E., with an area of 240 square miles. Population fell from 121,174 in 1891 to 116,814 in 1901. There are 261 villages and one town, THĀKURDWĀRĀ (population, 6,111), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 1,87,000, and for cesses Rs. 32,000. The density of population, 487 persons per square mile, is below the District average. The *tahsīl* is a submontane tract, cut up by numerous small streams, none of which is of importance. The Rāmgangā, into which they fall, flows near the western border. The staple crop is

rice, but sugar-cane is also grown largely. In 1902–3 the area under cultivation was 164 square miles, of which 14 were irrigated. Wells and rivers each supply about two-fifths of the irrigated area.

Thākurdwārā Town.—Head-quarters of the *tahsīl* of the same name in Morādābād District, United Provinces, situated in 29° 12′ N. and 78° 52′ E., 27 miles north of Morādābād city. Population (1901), 6,111. The town was founded in the reign of Muhammad Shāh (1719–48), and was plundered by the Pindāri, Amīr Khān, in 1805. It contains a *tahsīli*, a police station, a dispensary, and a branch of the American Methodist Mission. It is administered under Act XX of 1856, with an income of about Rs. 1,300. The *tahsīli* school has 83 pupils.

Thākurgaon Subdivision.—Northern subdivision of Dinājpur District, Eastern Bengal and Assam, lying between 25° 40′ and 26° 23′ N. and 88° 2′ and 88° 39′ E., with an area of 1,171 square miles. The subdivision is an alluvial tract, through which several rivers pursue a southerly course. The population in 1901 was 543,086, compared with 531,408 in 1891, the density being 464 persons per square mile. It contains 1,990 villages, of which THĀKURGAON (population, 1,658) is the head-quarters; but no town. Important fairs are held annually at NEKMARD and ALAWAKHĀWA. There is a fine temple at KĀNTANAGAR.

Thākurgaon Village.—Head-quarters of the subdivision of the same name in Dinājpur District, Eastern Bengal and Assam, situated in 26° 5′ N. and 88° 26′ E., on the Tāngan river. Population (1901), 1,658. It contains the usual public offices; the sub-jail has accommodation for 18 prisoners.

Thal.—The great steppe lying between 30° 30′ and 32° 0′ N. and 70° 30′ and 72° E., in the Sind-Sāgar Doāb, Punjab. It stretches southward from the foot of the Salt Range for 150 miles towards the apex of the *doāb* as far as the border of Muzaffargarh District, and comprises most of the cis-Indus territory of Miānwāli and part of the Khushāb *tahsīl* of Shāhpur District, being bounded on the west by the high bank of the Indus and on the east by that of the Jhelum. In places its width exceeds 50 miles. A scanty rainfall, a treeless sandy soil, and a precarious and scattered pasturage mark this out as one of the most desolate tracts now remaining in the Punjab. Much of it is real desert, barren and lifeless, and devoid not only of bird and animal life, but almost of vegetation. At first sight the Thal appears a uniformly monotonous desert, but in reality its character varies. The northern Thal has a substratum of hard level soil, the surface of which is covered by a succession of low sandhills with a general north and south direction; and its appearance is that of a sandy rolling prairie, covered in the rare years of good rainfall with grass and stunted bushes.

Cultivation is carried on only in small patches, water is from 40 to 60 feet below the surface, and the sparse population depend chiefly on their flocks and herds. It is traversed from west to east by the Sind-Sāgar branch of the North-Western Railway, which turns abruptly south at Kundiān and runs parallel with the Indus down the western border of the Thal. The eastern part of the steppe is called the Thal Kalān or 'Great Thal'; and here a line of high sandhills, running north-east and south-west, alternates with narrow bottoms of soil, stiff and hard in places, but more often covered with sand. Towards the west the hills become lower and less sandy. Agriculture here replaces pasturage as the occupation of the people, and in the Leiah *tahsīl* a broad strip of nearly level ground runs down from Fatehpur towards Mirhan. This tract is called Daggar in the north and Jandi Thal in the south. The main feature of the Daggar is its central core —a narrow strip of firm, flat, cultivable soil, which runs, like a river, from north to south down its centre. From the line of wells in this portion the Daggar takes its name. The good land ends near Khānpur in a region of smooth sand, to be succeeded near Karor by another fertile strip, which forms a core similar to the Jandi Thal. There is little doubt that the Indus once flowed down the middle of the Thal. Last we come to the Powah, a strip of upland some 3 miles broad forming the high bank of the Indus. In the north this bank rises abruptly 40 feet from the river level; but towards the south it gradually gets lower, until it disappears at Kot Sultān. Large villages, whose lands lie in the riverain tract below, are built on the Powah, where the floods are less likely to reach them. The Thal is peopled by Jat tribes with scattered septs of Siāl, Khokhar, and other Rājputs, and it was for a time under the Hot Baloch chiefs of MANKERĀ. That its natural characteristics have a depressing effect on the people is hardly a matter of surprise, and they are, to use their own expression, 'camel-hearted.' The tract will probably be irrigated by the projected Indus Canal.

Thal Subdivision.—Subdivision of Kohāt District, North-West Frontier Province, consisting of the HANGU TAHSĪL. The sub-divisional officer is also Political officer for the following tribes: Orakzai west of Fort Lockhart, Zaimukhts, Biland Khel and Kābul Khel Wazirs.

Thal Village.—Military outpost in the Hangu *tahsīl* of Kohāt District, North-West Frontier Province, situated in 33° 20′ N. and 70° 34′ E., on a branch of the North-Western Railway. Thal is a dépôt for the through trade with Northern Afghānistān which passes along the Kurram valley. It also does some local trade with the tribesmen of independent territory adjoining. The village lies on the left bank of the Kurram river, at the extreme limit of British territory,

and gives its name to a subdivision of the District. The fort is garrisoned by detachments of native cavalry and infantry under a British officer. A new border military police post and civil resthouse were built here in 1905.

Thal-Chotiāli.—A former District of Baluchistān, the north-eastern part of which has been merged since 1903 in LORALAI DISTRICT and the southern and western parts in SIBI DISTRICT.

Thalghāt (or Kāsāraghāt).—Pass in the Western Ghāts, on the boundary of Thāna and Nāsik Districts, Bombay, situated in 19° 43′ N. and 73° 30′ E., 65 miles north-east-by-north of Bombay city. The Thalghāt is, for purposes of trade, one of the most important in the range of the Western Ghāts, and as an engineering feat is rivalled only by the Borghāt farther south. It is traversed by two lines of communication, road and rail. The road is the main line between Bombay and Agra. It still conveys a large traffic coastwards in grain, and eastwards in salt and sundries. The railway is the north-eastern branch of the Great Indian Peninsula line. The summit of the railway incline is 1,912 feet above the level of the sea; the maximum gradient is 1 in 37; and the extreme curvature is 17 chains radius.

Thālner.—Village in the Shirpur *tāluka* of West Khāndesh District, Bombay, situated in 21° 15′ N. and 74° 58′ E., on the Tāpti river, 28 miles north-east of Dhūlia. Population (1901), 317. According to an old grant, Thālner was in the possession of the Gaulis or Ahīrs in 1128. Late in the fourteenth century (1370–99) Malik Rājā Fārūki chose it as his head-quarters. In 1498 it was invested by Mahmūd Begara of Gujarāt, and by him it was granted to one of his courtiers. At Thālner the Khāndesh king, Mīrān Muhammad Khān, was defeated by Changez Khān of Gujarāt in 1566. It passed to the Mughals in 1600. In 1750 the Peshwā received the fort; and after having been held by Holkar for some years, it was captured in 1818 by the British. The capture of Thālner was preceded by severe fighting, an active resistance being offered to Sir Thomas Hislop, who came to take possession. In storming the fort Major McGregor of the Royal Scots and Captain Gordon were killed. Their tombs are at Thālner. There are ten Muhammadan tombs of some little interest. The inscriptions are undecipherable, but they would seem to show that the tombs are of Fārūki kings, of whom four—Malik Rājā (1399), Malik Nāsir (1437), Mīrān Adil Khān (1441), and Mīrān Mubārak Khān—were buried at Thālner. The village contains a boys' school with 137 pupils.

Thān.—Village in the State of Lakhtar, Kāthiāwār, Bombay, situated to the north of the main road from Wadhwān to Rājkot. Population (1901), 1,327. The village is surrounded by a fort. It is interesting for its traditions rather than for the few antiquarian remains

now existing. The following description of the place is condensed from an account supplied by Major J. W. Watson:—

Thān is one of the most ancient places in India, and the whole of the neighbourhood is holy ground. Thān itself derives its name from the Sanskrit *sthān*, 'a place,' as though it were *the* place, hallowed above all others by the residence of devout sages, by the magnificence of its city, and by its propinquity to famous shrines, such as that of Trineteshwara, now called Tarnetar, the famous temple of the Sun at Kandola, and those of the Snake brethren Vāsuki and Banduk, now known as Wāsangi and Bāndia Beli respectively.

Thān is situated in the part of Surāshtra (Kāthiāwār) known as the Deva Pānchāl—so called, it is said, from having been the native country of Draupadi, the wife of the five Pāndava brothers, from which circumstance she was called Pānchāli; and because it is peculiarly sacred, it is called the Deva Pānchāl. Nor is Thān famous in local tradition alone. One of the chapters of the Skanda Purāna is devoted to Trineteshwara and the neighbourhood, and this chapter is vulgarly called the Thān Purāna or Tarnetar Māhātmya. Here we learn that the first temple to the Sun was built by Rājā Māndhātā in the Satya Yug. The city is said then to have covered many square miles, and to have contained a population of 36,000 Brāhmans, 52,000 Vaisyas, 72,000 Kshattriyas, and 90,000 Sūdras, in all 250,000.

In 1690 Kārtalab Khān, viceroy of Gujarāt, stormed the town and levelled the old temple. The present temple is built on the former site. Thān was visited also by Krishna and his consort Rukmini, who bathed in the two tanks near the town, whence one has been called Pritam, a contraction from *priyatam*, 'the beloved,' after Krishna, so named as being the beloved of the Gopīs; and the other Kamala, after Lakshmī, whose symbol is the *kamala* or lotus blossom. The central fortress was called Kandola, and here was the celebrated temple of the Sun. Immediately opposite to Kandola is another hill, with a fort called in more recent times, Songarh; and another large suburb was named Māndva. Within a few miles was the shrine of the three-eyed god Trineteshwara, one of the appellations of Siva; and close to this, the celebrated *kund*, by bathing in which all sins were washed away. This tank was called the Pāpnāshan or 'sin-expelling,' as the forest in which it was situated was called the Pāpanodanu-vana, or the 'forest of the sin-destroyer.' Close to Thān are the Māndhav hills, distinguished by this name from the rest of the Thānga range of which they form a part; and the remains of Māndhavgarh, such as they are, may be seen close to the shrine of Bāndia Beli, the modern name of Banduk, one of the famed Snake brethren.

An account of the remains at present existing will be found in Dr. Burgess's *Archaeological Survey of Western India*.

Thāna Agency.—Political charge, consisting of a Petty State in the District of Thāna, Bombay. *See* JAWHĀR.

Thāna District.—District in the Northern Division of the Bombay Presidency, lying between 18° 53′ and 20° 22′ N. and 72° 39′ and 73° 48′ E., with an area of 3,573 square miles. It is bounded on the north by the Portuguese territory of Damān and by Surat District; on the east by the Western Ghāts; on the south by Kolāba District; and on the west by the Arabian Sea.

Physical aspects.

Thāna consists of a distinct strip of low land intersected by hilly tracts, rising to elevations varying from 100 to 2,500 feet. Towards the east and north-east the country is elevated, covered with trees, and but scantily cultivated. Near the coast the land is low, and, where free from inundation, fertile. North of the Vaitarna river, whose broad waters open a scene of exquisite loveliness, the shores are flat, with long, sandy spits running into muddy shallows, while the hills also recede; so that, a little north of the great marsh of Dāhānu, the general aspect resembles Gujarāt rather than the Konkan, while the language also begins to change from Marāthī to Gujarātī. Along the whole line of coast the soil is fertile, and the villages are exceedingly populous. In the north-east the hills are covered with forest, and the valleys but partially cultivated; the villages are seldom more than scattered hamlets of huts; and the population consists mainly of uncivilized aboriginal tribes, many of whom still wander from place to place as they find land or water to suit their fancy. Inland, the District is well watered and well wooded. Except in the north-east, where much of it rises in large plateaux, the country is a series of flat, low-lying rice tracts broken by well-marked ranges of hills. Salt marshes are an important feature of this part of the District; and in them the reclamation of land for cultivation is going on steadily though slowly. The Vaitarna, rising in the Trimbak hills in Nāsik District opposite the source of the Godāvari, is the only considerable river. The sacredness of its source, so near the spring of the Godāvari, the importance of its valley, one of the earliest trade routes between the sea and the North Deccan, and the beauty of the lower reaches of the river, brought to the banks of the Vaitarna some of the first Aryan settlers. It is mentioned in the Mahābhārata as one of the four holy streams. The river is navigable for small craft from Agāshi to Manor, though deep and rapid in the rains. The Ulhās, rising in the ravines north of the Borghāt, flows into the Bassein creek, after a north-westerly course of about 80 miles. The other rivers are of little consequence—shallow during the cold season, and in the hot months almost dry. Except the Bassein creek, which separates the island of Salsette from the mainland and is navigable throughout its whole length, most of the inlets of the

sea, though broad and deep at their mouths, become shallow water-courses within 10 miles of the coast.

There are no natural lakes; but the Vehār, Tulsī, and Tānsa reservoirs, formed artificially, supply Bombay city with water. The Vehār reservoir, about 15 miles from Bombay, between Kurla and Thāna, covers an area of about 1,400 acres. It is formed by three dams, two of which are built to keep the water from flowing over ridges on the margin of the basin that were lower than the top of the main dam. The quantity of the water supplied by the reservoir is about 8,000,000 gallons a day, or a little more than 10 gallons per head for the population of Bombay. Within the watershed of the reservoir, tillage or the practice of any handicraft is forbidden, and the wildness of the surrounding country keeps the water free from the risk of contamination. The water is excellent, and bacteriological examination shows that the growth of weeds has exercised no appreciable effect upon its quality. The cost of the Vehār reservoir, and of laying the pipes into Bombay, was over 37 lakhs. As apprehension was felt that the quantity of water drawn from the gathering ground of Vehār (2,550 acres) might prove too small for the wants of Bombay, the neighbouring Tulsī reservoir was excavated at a cost of 4½ lakhs and its water kept ready to be drained into Vehār. In 1877 a new scheme was undertaken for bringing an independent main from Tulsī to the top of Malabar Hill in Bombay, which was carried out at a cost of 33 lakhs. This source of supply gives an additional daily allowance of 6 gallons per head for the whole population of the city, and provides for the higher parts of Bombay which are not reached by the Vehār main. The Pokarna reservoir, about 2 miles north-west of Thāna town, was constructed to supply drinking-water to Thāna in 1880–1. The Varala tank at Bhiwandi and the water-works at Murbād are important artificial reservoirs. The Tānsa reservoir is elsewhere described.

From the Thalghāt to the extreme south the Western Ghāts form an unbroken natural boundary. Besides the main range and its western spurs, ranges of hills are found all over the District. Among the most considerable are those running through Salsette from north to south, the Damān range, in which is Tungār, and the range running from north to south between the Vaitarna and the Bassein creek. There are also several more or less isolated hills, many of them in former times forts of strength and celebrity. The two most striking in appearance are Māhuli and Malanggarh.

There are a number of islands along the sea margin of Thāna District. The largest of these is Salsette, whose western belt is formed of what was formerly a string of small islets. Historians speak of the island of Bassein; and a narrow creek, the Supāri Khādi, still runs between the island and the mainland, crossed by the railway and the

bridges at Bolinj and Gokhirve. In the Bassein *tāluka* is the island of Arnāla, containing a well-preserved fort—Sindhudrug or the 'ocean fort'—with Musalmān remains, Sanskrit and Marāthī inscriptions above the east gate, and an old Hindu temple inside.

Except in alluvial valleys, Thāna District consists entirely of the Deccan trap and its associates. The special geological features from Bassein northwards are the traces of extensive denudation and partial reproduction of land. Of the line of hot springs that occur along the west coast, Thāna has four representatives in Māhīm, Vāda, Bhiwandi, and Bassein. Except those in Māhīm, almost all are either in the bed of, or near, the Tansa river.

The vegetation of the District is essentially Konkan in character. The toddy palm is very common in the coast *tālukas*. Thāna has a great variety of forest trees, and among its fruit trees the grafted mangoes of the coast orchards reach a high pitch of excellence. They are of three known varieties: *Alphonso*, *Pairi*, and *Raival*; the first two are believed to have been brought from Goa. The garden trees of Bassein yield about ten varieties of plantains. The District is rich in fine flowering plants, such as *Capparis*, *Impatiens*, *Vitis discolor*, *Crotalaria*, *Smithia*, *Erythrina*, *Blumea*, *Senecio*, *Sopubia*, and *Ipomaea*.

In the beginning of the fourteenth century there were, according to Friar Oderic, a number of 'black lions' in the District. Tigers and leopards are found in decreasing numbers in the forests on the slopes and in the valleys of the Ghāts. Hyenas, jackals, and porcupines are common, and bison and *chītal* are seen occasionally. Crocodiles are found in the estuaries, such as the mouth of the Kalyān creek, and in the deeper fresh-water pools, and are numerous in the Vehār lake. The District is infested with snakes, both venomous and harmless.

For fully half the year the climate is exceedingly moist, and the District is generally unhealthy. There are no great variations in temperature during the different seasons of the year, the air being cooled by sea winds during the hot months and in the south-west monsoon. The mean annual temperature is 83°, ranging from 58° in January to 103° in April. Except on the coast, October and November are malarious months, owing to the drying of the monsoon moisture. The cold season is short and mild. Two shocks of earthquake have been noted in the District, one in 1849 and the other in 1877. The latter was preceded by a noise 'like cannon being trotted along the road.'

The rainfall is heavy and is entirely derived from the south-west monsoon. Along the coast north of Bassein it averages from 62 to 69 inches, and at Bassein 83 inches. Frequently continuous rain causes damage to the embankments of the fields and the seed-beds of rice, washing away transplanted crops, and otherwise doing much mischief.

The Shāhāpur *tāluka* has the heaviest fall (111 inches), and the minimum is in Umbargaon *petha* (62 inches). The rainfall over the whole District averages 92 inches.

History.

In the third century B.C. Asoka's edicts were engraved at Sopāra in this District. After Asoka, the Andhrabhrityas ruled the Konkan, including Thāna. To them succeeded the Sāh dynasty, or Western Kshatrapas, and a revival of the former Mauryan dominion was subsequently overthrown by the Chālukyas of Kalyān. From 810 to 1260 the District was part of the possessions of the Silahāras, who made their capital at Purī (Elephanta), the former seat of the Mauryas in the Konkan. The Silahāras were probably of Dravidian origin. In their time (c. 1300) the Musalmāns overran the coast; but their supremacy was hardly more than nominal until about 1500, when the Gujarāt kings established themselves firmly. They soon came into collision with the Portuguese, who at this time appeared upon the coast, and after a struggle established themselves at Bassein in 1533 and built a fort. Their acquisitions spread along the coast and brought them into hostility with the Ahmadnagar king who held Kalyān and the interior, and the Kolī chiefs of Jawhār. The possessions of the Ahmadnagar kings passed to the Mughals. In 1666 Sivajī seized the south-east of Thāna and attacked the Portuguese in Salsette, and by 1675 he was the undisputed ruler of the interior as far as Kalyān; but a little later the Mughals regained a footing, and in 1694 they attacked the Portuguese. The Sīdīs of Janjīra commanded the Musalmān fleet; and the naval wars between them and the Marāthās often imperilled the safety of the island of Bombay. Arab pirates devastated the Portuguese possessions, and after Aurangzeb's death Angria subdued the country from the Borghāt to Bhiwandi. About 1731 the power of both Angria and the Sīdī appears to have declined through internal dissensions, on which the Peshwā's central government came to the front. By 1739 he had deprived the Portuguese of all their possessions, including the ports of Thāna and Bassein. The expense of maintaining Bombay induced the English to make an effort to obtain Salsette by treaty, and, this failing, they took it by force in 1774. In 1775 Raghunāth Rao Peshwā ceded Bassein and its dependencies to the British. Jealousy of the French, who had entered into negotiations with the Peshwā, induced the Bombay Government to attack the Marāthās; but being obliged to oppose Haidar Alī in Madras, they restored their conquest, Bassein and its dependencies, on the mainland of Thāna, by the Treaty of Sālbai, in 1782. In 1817 the Peshwā ceded the northern parts of the present District in return for British support, and, war breaking out almost immediately, the rest was annexed. Since then, operations to put down the Kolī robbers, which extended over several years, and police measures to punish occasional gang robberies by

the same tribe, have been the only interruptions to the peace of the District.

The archaeological remains in Thāna District are mainly Hindu. The most interesting Portuguese remains are the forts and churches at Bassein and at Mandapeshvar, Ghodbandar, and other places in Salsette. The chief Musalmān remains are mosques, tombs, and reservoirs at Bhiwandi and Kalyān. The principal Buddhist remains are caves at Kānheri, Kondivati, and Māgāthan in Salsette, and at Lonād in Bhiwandi, the Kānheri caves being of special interest. Brāhmanic remains include caves at Jogeshvari and Mandapeshvar in Salsette; temples at Ambarnāth in Kalyān, Lonād in Bhiwandi, and Atgaon in Shāhāpur; and caves at Palu Sonāla in Murbād. Other remains, either Buddhist or Brāhmanic, are a rock-cut temple at Vashali in Shāhāpur; caves or cells at Indragath in Dāhānu, and at Jivdhan in Bassein.

Population.

In 1846 the population of the District is said to have been 593,192; in 1872 it was 847,424; in 1881, 908,548; in 1891, 904,860; and in 1901, 811,433. The recent enumerations show an apparent decrease, which is due to the transfer of the Panvel *tāluka* to Kolāba District between 1881 and 1891 and of the Karjat *tāluka* to the same District before 1901. The adjusted population for the present area was in 1872, 673,560; in 1881, 725,305; in 1891, 819,580; and in 1901, 811,433, the actual decrease being one per cent. The District is divided into nine *tālukas*, with area and population as follows:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Dāhānu*	644	...	212	129,815	202	− 3	5,526
Māhīm	409	1	187	82,562	202	− 4	3,712
Vāda †	566	...	221	70,895	125	− 1	1,609
Shāhāpur	610	...	197	83,881	138	− 9	2,206
Bassein	223	1	90	80,251	360	+ 5	4,258
Bhiwandi	249	1	196	77,440	311	−11	2,852
Kalyān	276	1	224	77,087	279	− 4	3,103
Murbād	350	...	171	62,569	179	− 5	1,833
Salsette	246	3	128	146,933	597	+ 16	18,009
District total	3,573	7	1,626	811,433	227	+ 1	43,108

* Including Umbargaon *petha*.
† Including Mokhāda *petha*, which, since 1901, has been transferred to it from the Shāhāpur *tāluka*.

There are seven towns—Bāndra, Bassein, Bhiwandi, Kalyān, Kelve-Māhīm, Kurla, and Thāna, the head-quarters—and 1,697 villages. The density is 227 persons per square mile, Salsette containing the maximum, 597. Marāthī is spoken by 88 per cent. of

the population. According to religion, Hindus form 90 per cent. of the total, Musalmāns and Christians 5 per cent. each.

The population of Thāna consists very largely of primitive tribes, such as the Vārlis (89,000), Thākurs (51,000), Kāthkaris (22,000), and Kāthodis (13,000), and the more progressive aborigines the Agrīs (84,000) and Kolīs (86,000). The first four for the most part lead a wandering life in the jungle, subsisting by the collection and sale of forest produce or raising a scanty crop by rude methods of cultivation. The Agrīs are salt-makers and cultivators, while the Kolīs living on the coast are sailors and fishermen. These castes and tribes are animistic, and worship non-Brāhmanic spirits and deities. Even Pārsīs, Jews, Musalmāns, and Christians make offerings to these local deities. Except a few who proceed to Bombay during the dry season, chiefly as labourers and cartmen, the people seldom leave their homes in search of work. Their labour seems not to be in much demand outside the District, probably because their fever-stricken constitutions prevent them from competing with the able-bodied labouring classes of Poona, Sātāra, and Ratnāgiri. Much of this want of strength is due to the weakening climate, malarious forests, the strain and exposure in planting rice, and the immoderate use of spirituous drinks. Of outside labourers who come to Thāna for work, the most important class are Deccan Kunbīs (108,000) and Mahārs (44,000), of whom the former are known in the District as *ghātis* or 'highlanders.' They generally arrive in the beginning of the fair season, trooping in hundreds down the Borghāt and other passes. Many find employment as grass-cutters in Salsette, Kalyān, and Māhīm. The chief palm-tapping caste is the Bhandāri (14,000), common throughout the Konkan. In the higher ranks, the chief Brāhman caste is the Konkanasth (6,000), and Prabhus or writers are numerous (5,000). Traders come from Gujarāt and Mārwār, and are chiefly Vānīs (10,000), including Bhātias (780), and Pārsīs (5,000). Agriculture supports 65 per cent. of the total population; of the rest, 4 per cent. are supported by industry and 2 per cent. by general labour. Fishermen and fish-curers number 14,000. The cultivators are mainly Kunbīs and Agrīs.

In 1901 the Christian population comprised 601 Europeans and Eurasians and 42,000 native Christians, of whom 29,000 were Roman Catholics. The unusually large number of native Christians is a relic of Portuguese dominion. As the original converts were not obliged to give up caste distinctions, their descendants have retained many of them, and a Thāna Christian can still tell to what caste his family belonged before conversion. The Christians of several villages in the Bassein *tāluka* claim descent from Brāhmans. Indeed, Christians of some castes commonly call themselves Christian Bhandāris, Kunbīs, or Kolīs, as the case may be; and members of different castes do not, as a rule, inter-

marry, though the restriction in this respect is not so rigid as among Hindus. All of them have Portuguese names; and they show their attachment to their faith by contributing very largely to their churches and to the support of their priests. All Christian villages on the coast, and a good number inland, have their churches; and where a congregation is not large enough to keep a resident priest, one priest serves two or three churches. At many of the Salsette churches annual fairs or festivals are held, to which the Christians flock in great numbers. Numerous Hindus and Pārsīs also attend, as some of the shrines have a reputation for working cures, which is not confined to Christians, and obtains for them many heathen offerings. The upper classes dress as Europeans, the lower generally with jacket and short drawers of coloured cotton, and a red cloth cap; the women of the lower classes dress like the Marāthās, and, when they appear at church, wear a voluminous white shawl or mantle. Their houses are generally tiled, and often two-storeyed, and frequently washed in colours outside. Many of these Christians are employed as clerks and shopmen in Bombay; but they pride themselves on differing from their brethren of Goa in refusing to enter domestic service. They live by cultivation, fishing, toddy-drawing, and every other employment open to similar classes of Hindus. A few members of the best families enter the priesthood. In Salsette very many, and in Bassein a few, of the state grants to village headmen are held by Christians. In religious matters the Thāna Christians belong to two bodies, those under the jurisdiction of the Archbishop of Goa and those under the jurisdiction of the Vicar Apostolic of Bombay. The latter are a small body, not numbering more than 5,000 souls. Their spiritual matters are managed chiefly by members of the Society of Jesus. Besides Bāndra, where they have a church of St. Peter and two native orphanages, they have churches and vicars at the villages of Mān, Kānchavli, Gorai, Juhu, Wadoli, and Nirmal. There are nine churches and one chapel with a resident priest in Bassein under the jurisdiction of the Bishop of Dāman. At Malyān is a branch of the German Baptist Brethren Mission of Surat, and at Sanjān is a small boarding-school belonging to another mission, which has done good work with children of both sexes. The American Methodist Episcopalian Mission maintains a small branch at Kasara in the Shāhāpur *tāluka*, as also does the Pentecostal Mission at Vasind.

Agriculture.

The main division of soil is into 'sweet' and 'salt.' 'Sweet' land is either black or red; the black is known as *shet*, meaning the level rice lands, and the red as *mālvarkas*, that is, the flat tops and slopes of trap hills. Rice lands belong to two classes, *bāndhni* and *mālkhandi*. *Bāndhni* lands are either banked fields which can be flooded, or low-lying fields without embankments, in which water lies during the rains. The low-lying fields are the most

productive, as the rain-water leaves a rich deposit. *Mālkhandi* lands are open fields in which no water gathers and which have no embankments. In many places along the coast, especially in the garden lands of Bassein and Māhīm, the black soil is lighter and more sandy than in the interior.

The District is almost entirely *ryotwāri*, only about 6 per cent. being *inām* or *jāgīr*. About one per cent. is owned by *izāfatdārs* and ½ per cent. by *khots*. The chief statistics of cultivation are as follows, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Dāhānu . .	641	294	½	38	194
Māhīm . .	409	137	2	36	121
Vāda . . .	567	229	...	21	202
Shāhāpur . .	610	220	...	26	210
Bassein . .	219	88	4	13	79
Bhiwandi . .	249	123	...	5	76
Kalyān . .	276	148	...	6	53
Murbād . .	350	161	...	6	83
Salsette . .	249	128	2	25	24
Total	3,570*	1,528	8½	176	1,042

* The area for which statistics are not available is 102 square miles. The total area is based upon the latest information and differs by three miles from that given in the *Census Report* of 1901.

Among the crops, rice holds the first place with an area of 493 square miles; next come *rāgi* and *vari* with 81 and 25 respectively, mostly sown in the Shāhāpur and Murbād *tālukas* and in the Mokhāda *petha* of the Vāda *tāluka*. The cultivation of rice is carried on extensively in embanked fields. Inferior cereals, oilseeds, pulses, and *san*-hemp are grown on the uplands and in the north of the District; gram or *vāl* occasionally follows sweet rice as a catch-crop. There is a large trade in forage with Bombay. The gardens and orchards of the coast also contribute largely in vegetables and fruits to the same market, to which they supply excellent mangoes and plantains.

Two influences, sea encroachment and land reclamations, have for centuries been changing the lands along the coast. Of the encroachments, the most remarkable are at Dāhānu, where the sea has advanced about 1,500 feet; and at the mouth of the Vaitarna, where since 1724 four villages have been submerged. Of the land reclamations, most have been made in small plots, which, after yielding crops of 'salt' rice for some years, gradually become freed from their saltness, and merge into the area of 'sweet' rice land. Most of the embankments built to keep back the sea are believed to be the work of the Portuguese, having been constructed partly by the Government and partly by the European settlers to whom the Government granted large estates. In this, as in other respects, the Portuguese did much to improve

the coast districts. The supply of *rab* manure is now much improved, owing to the action of the local authorities in pressing a more economical system of tree and shrub-lopping upon the cultivators. Efforts have recently been made in the Mahīm *tāluka* to introduce oil engines and long channels for garden cultivation. From the beginning of British rule, salt wastes have been granted for reclamation on specially favourable terms. During the decade ending 1903–4 the cultivators found it necessary to borrow only 2·5 lakhs under the Land Improvement and Agriculturists' Loans Act. Of this sum, Rs. 89,000 was advanced in 1899–1900.

Except in Mokhāda, the east of Vāda, and Shāhāpur, little attention is paid to the breeding of cattle. In Mokhāda care is taken in the selection of bulls, which are bought from Nāsik graziers, the Kānadās cattle from the hills or the Nāsik border being considered the best. The ponies bred locally are chiefly undersized. There are no special varieties of sheep or goats.

Along the coast the water-supply is abundant, and the water, though brackish, is not unwholesome. Inland, water can be had for the digging, but the people are so poor that wells are few and the supply of water scanty. The chief irrigation consists of flooding the rice lands during the rains by means of the small streams that drain the neighbouring uplands. In the dry season some irrigation is carried on from rivers and unbricked wells. About 8½ square miles were irrigated in 1903–4, chiefly from wells; and there were 5,057 wells and 22 tanks used for irrigation.

Fisheries.

The sea fisheries of Thāna are important and very productive. The supply of fresh fish for the market of Bombay and of dried fish for the Deccan supports a large section of the population, chiefly Kolīs. The oysters of Kālu in the north of the District bear an excellent reputation. Of the pearls, which are mentioned by Pliny (A.D. 77) and by Al Idrīsi (A.D. 1135), specimens are still found in the Thāna creek.

Forests, &c.

Forest administration is under the control of three divisional Forest officers, assisted by three subdivisional Forest officers. The forests of Thāna, which supply Bombay with a large quantity of firewood, yielded a revenue of Rs. 64,700 in 1870–1, and about 3·7 lakhs in 1901. In 1903–4 the income was 3·8 lakhs. Together with those of Kanara and Khāndesh, they are the largest and most valuable in the Presidency. About 1,028 square miles have been provisionally gazetted as 'reserved' and 213 square miles as 'protected' forest. The timber trade is chiefly in the hands of Christians of Bassein, Musalmāns, and Pārsis. The District has a great variety of forest trees. The forest products are timber, firewood, charcoal, bamboos, *kārvi*, *ain*, and other barks, *apta* and *temburni*

leaves. Much of the forest is chiefly valuable as supplying grazing, the income derived from fodder and grazing in 1903–4 being Rs. 11,000.

Thāna is destitute of workable minerals. The laterite which caps many of the highest hills, such as Prabal and Māhuli, bears traces of iron, and where charcoal has been burnt lumps of clay resembling iron slag may be found. The water in many springs also shows signs of iron. But iron ore is nowhere found in paying quantities. The only other mineral of which there are traces is sulphur, found in the hot springs at Vajrābai in Bhiwandi.

Trade and communications.

Next to agriculture, the making of salt is the most important industry of the District. There are 99 salt-works with an out-turn in 1903–4 of 2,300,000 maunds, yielding a revenue of 53 lakhs. The salt-workers are chiefly Agris. Thāna salt is made by the solar evaporation of sea-water. Ordinary brass-work and pottery are important industries. Hand-loom weaving by Portuguese or native Christians, who made cotton cloth, including the particular striped variety known as Thāna cloth, is now practically extinct. The Musalmāns of Thāna and Bhiwandi weave silk and cotton goods, but the industry suffers from proximity to the Bombay mills. There are at Kurla two spinning and weaving mills, owned by public companies, with 81,000 spindles and 1,715 looms, which produce 11,000,000 lb. of yarn and nearly 5,000,000 lb. of cloth for the Indian and foreign markets. During 1904 the average number of daily workers was 4,502. There is also a bone-mill which employs 100 hands and manufactures bone manure. Of other industries the cleaning of agave fibre and the manufacture of paint may be mentioned, while a large number of people are employed in lime-burning and brick-making.

From the earliest historical times there has always been an ocean trade to the coast of Thāna and caravan traffic through the Ghāt passes. Since the establishment of railway communication with the interior, the roads and tracks of the District have carried only local traffic, which is still considerable. The chief articles of export are rice, salt, wood, lime, and dried fish. Cotton cloth, grain, tobacco, coconuts, sugar, and molasses are the chief articles of import. The annual value of the sea-borne trade of the ports in 1903–4 was: imports 55 lakhs, and exports 57 lakhs. The leading traders are Konkani Musalmāns, Gujarāti and local Vānis, and Bhātias. Numerous fairs are held in the District.

Along the sea-coast, and up the creeks, sailing vessels and canoes form a ready means of communication. In three directions the District is crossed by railways. To the north, the line of the Bombay, Baroda, and Central India Railway skirts the coast for a total distance of 95 miles. East and west, the Great Indian Peninsula Railway

runs for 24 miles, and then dividing, runs north-east by the Thalghāt to Nāsik and south-east by the Borghāt to Poona. Two main lines of road run eastward, the Agra road across the Thalghāt to Nāsik and the Poona road by way of the Borghāt. Since the establishment of Local funds, many new lines of roads have been made; and in 1903-4 there were 708 miles of roads in the District, of which 327 miles were metalled. Of the latter, 133 miles of Provincial and 139 miles of local roads are maintained by the Public Works department. Avenues of trees have been planted along 357 miles.

During the nineteenth century three causeways were made between the islands in the neighbourhood of Bombay city. The first joined Sion in Bombay with Kurla in Salsette, the second joined Māhīm in Bombay with Bāndra in Salsette, and the third joined Kurla in Salsette with Chembur in Trombay. The Sion causeway was begun in 1798 and finished in 1805 at a cost of Rs. 50,000. In 1826 its breadth was doubled, and it was otherwise improved at a further outlay of Rs. 40,000. The Sion causeway is 935 yards long and 24 feet wide. In 1841 Lady Jamsetjī Jījībhoy offered Rs. 45,000 towards making a causeway between Māhīm and Bāndra. The work was begun in 1843, and before it was finished Lady Jamsetjī increased her first gift to Rs. 1,55,800. The causeway was completed at a total cost of Rs. 2,04,000, and was opened in 1845. It is 3,600 feet long and 30 feet wide, and in the centre has a bridge of 4 arches, each 29 feet wide. The Chembur causeway was built about 1846, and is 3,105 feet long and from 22 to 24 feet wide.

Famine.

Thāna, like the rest of the Konkan, is practically free from the effects of drought. The earliest famine of which information is available took place in 1618. In that year at Bassein the famine was so severe that children were openly sold by their parents to Musalmān brokers, until the practice was stopped by the Jesuits. The great famine of 1790 interrupted the progress of Salsette. The exodus caused by Marāthā raids in the Deccan led to scarcity in the Konkan in 1802. Of seasons marked by more or less general dearth, the chief are: 1839, when remissions of about 3 lakhs had to be granted; 1848, when most of the 'salt' rice crop failed owing to high spring-tides. In 1899 the rainfall was unfavourable and caused distress in some parts of the District, but the area affected was only one-tenth of the total.

Administration.

The District is divided into three subdivisions, in charge of two Assistant Collectors and one Deputy-Collector. It comprises the *tālukas* of Bassein, Bhiwandi, Dāhānu, Kalyān, Māhīm, Murbād, Salsette, Shāhāpur, and Vāda, the petty subdivisions (*pethas*) of Umbargaon and Mokhāda being included in the Dāhānu and Vādā *tālukas*. The Collector is *ex-officio* Political Agent of the Jawhār State.

The administration of justice is under the District and Sessions Judge, whose jurisdiction, except during the monsoon months, includes Kolāba District. He is assisted by one Assistant and six Subordinate Judges. There are altogether 31 officers to administer criminal justice. The commonest offences are theft and house-breaking. Offences under the Railway Act, which are tolerably frequent, are tried by the Assistant Collector in charge of Bassein, Dāhānu, and Salsette, as railway magistrate.

Besides the regular survey tenure common to the Presidency, a considerable number of villages, chiefly in the Salsette *tāluka*, are held on the *khoti* tenure. The *khots*, who are leaseholders of a certain number of villages, obtained their land from the British Government at an early period of its rule. Another kind of leasehold tenure, known as *izāfat*, is found in most parts of the District, and is a variety of the service tenure of hereditary officials. The lands are now held on the survey tenure, the *izāfatdār* having a position analogous to that of superior holders. Other lands, lying either on the coast or along the larger creeks, are held on the *shilotri* tenure. *Shilotri* lands are those which have been reclaimed from the sea and embanked, and of which the permanence is dependent on the embankments being kept up. These reclamations are known as *khārs*. The tenure is of three sorts. First, *shilotri* proper, under which the *khār* belongs to the person by whom it was reclaimed. The *shilotridārs* are considered to have a proprietary right; they let out their lands at will, and, according to old custom, levy a maund of rice per *bīgha*, in addition to the assessment for the repair of the outer embankments. The second class of *shilotri* lands are those in which Government either reclaimed the *khārs* in the first instance, or subsequently became possessed of them by lapse. Except that they pay an extra rate, which is spent in repairing the embankments, the cultivators of these *khārs* hold their lands on the same condition as survey occupants. The third class of *shilotri* lands comprises those in which reclamations were made by association of cultivators on special terms arranged with Government. Many forms of assessment were in force when Thāna was ceded to the British, and continue in use of groups of villages. They can usually be traced to the Hindu chiefs who held the country before the arrival of the Musalmāns. Rice lands were, without measurement, divided into parcels or blocks which were estimated to require a certain amount of seed, or to yield a certain quantity of grain. The system has several names, *dhep*, *hundābandi*, *mudābandi*, *kāsbandi*, *takbandi*, and *tokābandi*, though the leading principle of all is the same. The levy of a plough cess, a sickle cess, or a pickaxe cess, which, till the introduction of the revenue survey, was the form of assessment almost universal in hill and forest tracts, seems also to date from

early Hindu times; and the practice of measuring palm and other garden lands into *bighas* seems to belong to the pre-Musalmān rulers. Finally, the Kanarese term *shilotar* shows that from early times special rules have been in force to encourage the reclamation of salt wastes. During the sixteenth century the officers of the Ahmadnagar kingdom are said to have measured the rice land and reduced the state share to one-sixth, and in the uplands to have continued the levy of a plough cess. The husbandmen were treated as proprietary holders. Early in the seventeenth century Malik Ambar, the Ahmadnagar minister, introduced a new system based on that of Todar Mal. According to Major Jervis, Malik Ambar's chief innovation was to make the settlement direct with the village instead of with the hereditary revenue superintendents and accountants. His next step was to find out the yield of the land. With this object he arranged the rice lands into four classes. Later in the seventeenth century Sivajī, by his minister Annājī Dattu (1668–81), divided the lands into twelve classes. The Portuguese, in Bassein and Salsette, leased the land to *fazendeiros*, or hereditary farmers of land, at a *foro* or quit-rent; but the payment by tenants to proprietors was regulated on the ancient system. The eighty-seven years (1730–1817) of Marātha management form three periods: thirty years during which no change was introduced; thirty years when fresh surveys were made, new cesses were levied, and revenue farming became general; and twenty-seven years when revenue farming was universal. In 1774, when Salsette and Karanja were acquired by the British, the people were in great misery and revenue was largely in arrears. In 1798–9 a new system was introduced. All the petty taxes levied by the Portuguese and Marāthās were abolished, and the Government demand was fixed at one-third of the average produce of all lands except *shilotri* lands, which were charged with one-fifth. From the cession of the Peshwā's possession in 1817 to the completion of the original survey settlement in 1886 the revenue history also belongs to three periods: eighteen years (1817–35) in which the establishment of a system of village accounts was substituted for one of revenue farmers, and rates were revised; seventeen years (1835–52) of further reductions; and since then, the revenue survey.

In 1895 a resettlement was undertaken which was completed in 1904. The survey found that the cultivated area had increased by 10,000 acres, and the settlement enhanced the total revenue by nearly 4 lakhs of rupees to 14 lakhs. The average rates are: 'dry' land, 5 annas (maximum Rs. 2–2, minimum 2 annas); rice land, Rs. 3–11 (maximum Rs. 8–10, minimum Rs. 1–6); and garden lands, Rs. 1–10 (maximum Rs. 5–8, minimum 11 annas).

The collections on account of land revenue and total revenue have been as follows, in thousands of rupees :—

	1880-1.*	1890-1.	1900-1.	1903-4.
Land revenue . . .	15,12	13,36	12,94	15,68
Total revenue . . .	27,80	28,87	29,89	33,36

* In 1880-1 the District included two *tālukas* since transferred to Kolāba.

The District contains seven municipal towns: namely, THĀNA, KURLA, BĀNDRA, BASSEIN, Kelve-MĀHĪM, BHIWANDI, and KALYĀN. Outside these, local affairs are under the District board and nine *tāluka* boards. The expenditure of these boards in 1903-4 was 2½ lakhs, of which nearly half was spent on roads and buildings. The income amounted to 3 lakhs, the land cess being the chief item.

The District Superintendent, with the aid of one Assistant Superintendent, 2 inspectors, and 12 chief constables, controls the police of the District. There are 14 police stations. The force in 1904 numbered 610 men, working under 152 head constables. Besides the District jail, called a 'special' jail as it accommodates long-term convicts to the number of 730, there are 11 subsidiary jails and one lock-up in the District with accommodation for 102 prisoners. The daily average prison population in 1904 was 681, of whom 38 were females.

Thāna stands ninth among the Districts of the Presidency in the literacy of its population, of whom 5·2 per cent. (9·1 males and 1·3 females) could read and write in 1901. In 1855-6 there were only 17 schools in the District, attended by 1,321 pupils. By 1881 the number of schools had risen to 178, attended by 8,872 pupils, who in 1891 had increased to 17,984. In 1901 the number was 13,191, but the decrease was due to changes in the District area. In 1903-4 the District had 301 schools, of which 48 were private, attended by 15,843 pupils, of whom 2,653 were girls. The public institutions included 3 high, 9 middle, and 241 primary schools. Of the 253 public institutions, one is managed by the Educational department, 186 by the local boards, 42 by municipalities, while 23 are aided and one unaided. The total expenditure on education in 1903-4 was nearly 1¾ lakhs, of which 54 per cent. was devoted to primary education.

In 1904 the District possessed one hospital, 14 dispensaries, and a leper home. The Thāna civil hospital was established in 1836, and the first dispensary was opened at Bāndra in 1851. These institutions contain accommodation for 126 in-patients, 35 being in the leper home. Including 652 in-patients, the total number treated was 115,000, and the operations performed numbered 2,137. The expenditure on medical relief was Rs. 51,000, of which Rs. 16,000

was contributed by Local and municipal funds. A lunatic asylum at Navāpāda had 310 inmates in 1904, and is overcrowded.

The number of persons successfully vaccinated in 1903–4 was 19,120, representing the proportion of 23·6 per 1,000, which is slightly below the average for the Presidency. Since 1900 vaccination has been compulsory in Bāndra and Kurla towns.

[Sir J. M. Campbell, *Bombay Gazetteer*, vol. xiii (Parts i and ii), and vol. xiv (1882).]

Thāna Town.—Head-quarters of Thāna District, Bombay, and also of the Salsette *tāluka*, situated in 19° 12′ N. and 72° 59′ E., on the Great Indian Peninsula Railway, 21 miles north-east of Bombay city. Population (1901), 16,011. Thāna is prettily situated on the west shore of the Salsette creek, in wooded country. The fort, the Portuguese cathedral, a few carved and inscribed stones, and several reservoirs, are now the only signs that Thāna was once an important city. At the close of the thirteenth century the fortunes of Thāna seem to have been at their highest. It was the capital of a great kingdom, with an independent ruler. It was celebrated for producing *tanushi*, a kind of striped cotton cloth, which is still known as Thāna cloth. In 1318 Thāna was conquered by Mubārak Khiljī, and a Muhammadan governor was placed in charge. A few years later four Christian missionaries were murdered here by the new rulers. In 1529, terrified by the defeat of the Cambay fleet and the burning of the Bassein coast, 'the lord of the great city of Thāna' became tributary to the Portuguese. This submission did not save him in the war that followed. The city was thrice pillaged, twice by the Portuguese and once by the Gujarātis. It was then, under the treaty of December, 1533, made over to the Portuguese. Under Portuguese rule Thāna entered on a fresh term of prosperity. In 1739, with the loss of Bassein, the Portuguese power in Thāna came to an end. In 1771 the English, urged by the news that a fleet had left Portugal to recover Salsette and Bassein, determined to gain possession of Thāna. Negotiations for its cession failing, a force was dispatched to take it by force. On December 28, 1774, the fort was stormed, and the greater part of the garrison put to the sword.

Thāna has been a municipal town since 1863, with an average income during the decade ending 1901 of Rs. 37,000. In 1903–4 the income was Rs. 38,000. The only public works of importance are the Pokarna water-works which supply the town. Thāna being less than an hour's journey from Bombay, many Government officials and business men now reside there, visiting Bombay daily. The town contains the usual public offices, a Sub-Judge's court, a civil hospital, and a dispensary. The chief Portuguese building is the fort, now used as a jail. It was built in 1737. Besides the civil hospital and a dispensary,

there is an asylum for lunatics in Navāpāda, about one mile from the railway station. The chief educational institutions are the Bairāmjī Jījībhoy High School opened in 1880, an English school for girls, and an English middle school for boys. The number of pupils at these in 1903-4 was 253, 79, and 69 respectively. The town also contains 4 vernacular schools for boys with 505 pupils, and 2 for girls with 185.

Thāna Bhāwan.—Town in the Kairāna *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 35′ N. and 77° 25′ E., 18 miles north-west of Muzaffarnagar town on an unmetalled road. Population (1901), 8,861. In the *Ain-i-Akbarī* the *pargana* is called Thāna Bhīm; but the present name is said to be derived from an old temple of Bhawānī, which is still much resorted to. The town was a centre of disaffection in 1857, when the inhabitants, headed by their Kāzī, Mahbūb Alī Khān, and his nephew, Ināyat Alī, broke into open rebellion. Among other daring feats, they captured the *tahsīli*, then at SHĀMLĪ, and massacred the 113 men who defended it. Thāna Bhāwan was soon after taken by the Magistrate, with some Sikh and Gurkha levies, after a fight of seven hours. The walls and gates were levelled to the ground and no further disturbances took place. The town decayed after the Mutiny, but the population has increased during the last thirty years. It contains a primary school, and some seventeenth-century mosques and tombs. It is administered under Act XX of 1856, the income from house tax being about Rs. 2,500.

Thandaung.—Hill station in the Toungoo township of Toungoo District, Lower Burma, situated in 19° 3′ N. and 96° 36′ E., 22 miles east-north-east of Toungoo town, with which it is connected by road. It stands on a ridge surrounded by picturesque scenery, 4,200 feet above the sea, and contains a large *dāk*-bungalow, an hotel, and a steadily increasing number of private residences. In 1901 its inhabitants numbered less than 50, but the total has risen since then. No records of temperature are kept in the station, but the thermometer rises little above 70° in the hot season. The rainfall is very heavy during the monsoon. Steps are being taken to improve the means of communication between Toungoo and Thandaung, and there is every prospect that Thandaung will be a useful sanitarium for the residents of Lower Burma.

Thandiāni.—Small hill sanitarium in the Abbottābād *tahsīl* of Hazāra District, North-West Frontier Province, situated in 34° 15′ N. and 73° 22′ E. It was established for the convenience of officers stationed at the neighbouring cantonment of Abbottābād, and contains some European houses and a small bazar, which are occupied only during the summer months.

Thānesar Tahsīl (*Thāneswar*).—Northern *tahsīl* of Karnāl District, Punjab, lying between 29° 55′ and 30° 15′ N. and 76° 36′ and

77° 17′ E., on the west bank of the Jumna, with an area of 599 square miles. The population in 1901 was 173,208, compared with 177,442 in 1891. It contains the towns of THĀNESAR (population, 5,066), the head-quarters, LĀDWA (3,518), and SHĀHĀBĀD (11,009); and 418 villages. The land revenue and cesses in 1903-4 amounted to 2·8 lakhs. Thānesar practically coincides with the old Pipli *tahsīl* of Ambāla District, from which it was transferred in 1897. On the east it has a narrow frontage along the Jumna. The fertile riverain low-lands average about 6 miles in width. The western boundary of this tract is the old bank of the Jumna, and from the crest of this bank the country slopes away westwards. The uplands are intersected by several torrent beds, and the soil, especially to the south, is for the most part stiff and infertile. *Dhāk* jungle abounds. The Markanda country on the north-west has the advantages of a lighter soil and fertilizing floods.

Thānesar Town (*Thāneswar*).—Head-quarters of the *tahsīl* of the same name in Karnāl District, Punjab, situated in 29° 59′ N. and 76° 50′ E., on the banks of the Saraswatī, and on the Delhi-Umballa-Kālka Railway. Population (1901), 5,066. It is famous as the most sacred place in the holy land of KURUKSHETRA, its name meaning 'the place of the god' (*sthāneshwara*). In the time of Hiuen Tsiang, Thānesar was the capital of a Vaisya (Bais) dynasty, which ruled parts of the Southern Punjab, Hindustān, and Eastern Rājputāna. In A.D. 648 a Chinese ambassador sent to Harshavardhana of Thānesar found that the Senāpati Arjuna had usurped his kingdom, and the dynasty then became extinct. Thānesar, however, continued to be a place of great sanctity; but in 1014 it was sacked by Mahmūd of Ghazni, and, although recovered by the Hindu Rājā of Delhi in 1043, it remained desolate for centuries. By the time of Sikandar Lodī it had, however, been in some measure restored, for that emperor proposed to make a raid on it to massacre the pilgrims. In 1567 Akbar witnessed its great fair; but Aurangzeb desecrated the shrine and built a castle in its sacred lake, whence his soldiers could fire on pilgrims who attempted to bathe. At the annexation of the cis-Sutlej territory, the town and neighbourhood were in the possession of a Sikh family; but they lapsed to the British Government in 1850. Thānesar was the head-quarters of a British District till 1862, but has since steadily declined in importance. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 7,900, and the expenditure Rs. 7,300. In 1903-4 the income was Rs. 8,900, chiefly derived from octroi; and the expenditure was Rs. 8,200. The town has a vernacular middle school and a dispensary. The bathing-fairs held here on the occasion of solar eclipses are sometimes attended by half a million pilgrims.

Thar.—Subdivision of Thar and Pārkar District, Sind, Bombay, composed of the MITHI, DIPLO, CHĀCHRO, and NAGAR *tālukas*.

Thar and Pārkar.—District in the east of Sind, Bombay, lying between 24° 13′ and 26° 15′ N. and 68° 51′ and 71° 8′ E., with an area of 13,941[1] square miles. It is bounded on the north by the State of Khairpur; on the east by the States of Jaisalmer, Malāni, Jodhpur, and the Rann of Cutch; on the south by the Rann of Cutch; and on the west by Hyderābād District.

Physical aspects.

The District of Thar and Pārkar may be divided into two portions—the one called 'Pat,' or plain of the Eastern Nāra, including the Nāra subdivision; and the other the 'Thar' or desert. The former, in its western part, rises from 50 to 100 feet above the level of the Sind plain, and some of the sandhills in it may be 100 feet higher, but they are not so elevated as in the Thar. Formerly, this part of the District exhibited a dry and arid appearance, owing to the insufficient supply of water in the Nāra; but since the construction of the Eastern Nāra Canal, and the consequent additional flow of water brought down by it, the valley of the Nāra is now covered with jungle and marsh. Through this portion flow the Jāmrao and Mithrao Canals, the former recently constructed, the latter an artificial stream running to the westward of the Nāra, but in some degree parallel to it for a distance of about 80 miles. In many parts beds of rivers long dried up are found intersecting the arid tract of the Thar; and these would seem to show that the waters of the Indus, or of some of its branches, once flowed through it, fertilizing what is now a wilderness, and finding their way to the sea either by one of the eastern mouths, or through the Rann or great salt marsh of Cutch. Quantities of bricks and pottery have also been found in various places scattered over the surface.

The Thar, or desert portion, consists of a tract of sandhills, which present the appearance of waves, running north-east and south-west; these hills become higher towards the west, and are composed of a fine but slightly coherent sand. To the south-east, again, of the Thar is the Pārkar tract, which differs from the former in possessing hill ranges of hard rock, the highest being not more than 350 feet above the surrounding level. There are sandhills also in this portion; but towards the east they become less elevated, and merge at last into a large open plain of stiff clay, through which, in places, limestone occasionally crops out. The peninsula of Pārkar, which in its extreme south-eastern direction juts out into the Rann of Cutch, is flat and level, except in the immediate vicinity of Nagar Pārkar, where there is an extensive area of elevated land known as the Kārunjhar hills, composed mostly of syenite rock.

[1] This was the area in 1905–6.

The common trees of the Nāra valley are the *babūl*, *nīm*, *pīpal*, *lai*, *siriha*, and *kirir*, while the *jar*, *kumbhat*, *kandi*, *raneri*, and a few other species flourish in the desert tracts. It is remarkable that, owing to differences of soil, the trees grown in one portion of the District cannot thrive in the other.

The principal wild animals are the hog, *phārā* or hog deer, *chinkāra* or gazelle, wolf, jackal, fox, jungle-cat, hare, otter, &c. Among birds are the bustard, the *tilūr*, geese, wild-fowl of many varieties, such as the mallard, widgeon, whistling teal, snipe, coot, water-hen, adjutant, pelican, flamingo, and various kinds of wading birds. Other birds found are the grey and black partridge, sand-grouse of several varieties, plover, and quail, the eagle, vulture, kite, several kinds of hawks, crows, owls, &c. Snakes are very common, especially in the hot season, and crocodiles abound in the Dhoro Nāro in the Nāra valley. The wild hog, black partridge, and water-fowl are met with only in the Nāra tract. The *gūrkhar* or wild ass frequents the Pārkar, and the hyena and lynx are found in the Thar.

The fisheries are confined entirely to the Nāra and the *dandhs* fed by it, the fish most commonly caught being the *jerki singāro*, *dambhro*, *marko*, *popri*, *gandan*, *goj* (eels), *chitori*, *haili*, *makar*, *patno*, and *kuro*.

The climate of the desert tract is somewhat similar to that of Cutch, and is subject to great variations of temperature, being excessively hot in the summer and very cold in the winter, the cold increasing as the sandhills are approached. From the beginning of November to the end of February the weather is pleasant and bracing, after which the hot winds set in, accompanied with heavy dust-storms. The glare and heat during the summer months are intense. The mean annual temperature at Umarkot is 76°, at Pārkar 84°, and at Mithi 76°. The climate of the Nāra valley is temperate, but very malarious.

The rainfall is not equal throughout the extensive area of the District, being heavier in Pārkar than in either the Nāra or Umarkot *tālukas*. The average yearly fall at Umarkot and Nagar Pārkar for three years ending 1903 was found to be 6 and 9 inches, mostly supplied by the south-west monsoon in July and August. Taken as a whole, the rainfall is heavier than in other parts of Sind.

History.

Very little is known of the early history of the District. The desert portion and Pārkar were formerly under the exclusive administration of the Political Agent in Cutch. The Soda Rājputs, the upper class of the District, who are said to be descended from Paramāra Soda, are supposed to have come into this part of Sind from Ujjain about 1226, when they quickly displaced the rulers of the country. Other authorities, however, state that they did not conquer the country from the Sūmras, the dominant race, before the beginning of the sixteenth century. The Sodas, in their turn,

succumbed to the Kalhoras about 1750, since which period the District has been subject more or less to Sind. On the fall of the Kalhora dynasty, it came under the domination of the Tālpurs, who built a series of forts in order to overawe the warlike population. In the Mithi and Islāmkot tracts, the Tālpurs are said by Raikes to have exacted two-fifths of the produce of the land; but no regular revenue system was introduced till the years 1830 and 1835, when disturbances at once took place. The Mīrs sent a large force to reduce the people to submission; and several chiefs were taken prisoners, and not released until they had paid heavy fines. The Thar and Pārkar District was for a long time the head-quarters of banditti, who made plundering excursions into Cutch and other neighbouring Districts. The British Government therefore interfered in 1832, and through the agency of Captain (afterwards General) Roberts suppressed the marauders. Posts of mounted men were retained in the country for the preservation of order until the conquest of Sind itself in 1843.

The inhabitants of this District then evinced a desire to be placed under Cutch; and with this view the divisions of Baliāri, Diplo, Mithi, Islāmkot, Singāla, Virāwah, Pitapur, Bhodesar, and Pārkar were in 1844 made over to that State. Umarkot, Gadra, and other tracts on the Nāra became a portion of Hyderābād District, or rather formed part of the subdivision of Mīrpur. All emoluments from revenue-free lands enjoyed by *pātels* or headmen, as well as cesses on Hindu marriages, were abolished, and the chiefs were further forbidden to bear arms. In consequence, it would seem, of these prohibitions, the District was in 1846 in open rebellion. But quiet was soon afterwards restored; and the Soda Rājputs, who appear to have been the prime movers in this disturbance, were called upon by Government to state their grievances, of which the following is a brief outline. They contended for their right of levying a tax of Rs. 26½ on every marriage among the Kirar Baniyās, and also a fee of one rupee's worth of cloth for enforcing debts due to that caste. They complained that the fields they formerly enjoyed revenue free were either reduced in number or taken away altogether from them, and they maintained that in times of scarcity they were entitled to exemption from all payment of duties on opium and grain. They asserted their right as Sodas to receive food when travelling from Baniyās without any payment, and that this caste was also bound to supply them with bedsteads and coverlets. They further desired to be permitted to receive, as formerly, a portion of the Umarkot customs. The Government, in reply to this list of grievances, allowed the Sodas, as compensation for the fees derived by them from the Kirār Baniyās, the annual interest at 5 per cent. on the sum of Rs. 14,000, and permitted several of the tribe to hold a certain number of fields revenue free, provided they undertook to cultivate them. They also

received a share in the Umarkot customs, but the rest of their demands were not complied with.

In 1856 the desert portion of the District, together with Pārkar, which had been administered by the Assistant Political Agent in Cutch since 1844, was incorporated in the province of Sind. In 1859 a rebellion broke out in the District, necessitating the dispatch of a military force under Colonel Evans from Hyderābād to quell it. This officer in May of that year occupied the town of Nagar Pārkar, and captured the Rānā, driving back in the following month a large body of Kolīs, who had ventured to attack the place. The Rānā and his minister were in 1868 tried for sedition, and convicted, the former being sentenced to fourteen years' and the latter to ten years' transportation. From that period down to the present time, Thar and Pārkar has enjoyed peace and quietness.

The remains of several old temples are to be seen in the Pārkar portion of the District. One of these is a Jain temple, 14 miles north-west of Virāwah, which contained an image of great sanctity and repute known under the name of Gori. Near the same place, also, are the remains of an ancient city called Pāri Nagar, covering 6 square miles in area and strewn with marble pillars. It is reported to have been founded in A. D. 456 by Jeso Paramāra of Balmir, and to have been very wealthy and populous; its final decay is said to have taken place some time during the sixteenth century. The ruins of five or six Jain temples still exist, displaying some excellent sculpture and beautifully executed designs. Another ruined city is Ratakot, situated on the Nāra, south of the town of Khipra, and distant about 20 miles from the village of Rānāhu. Near Mīrpur Khās are the ruins of Kahu, which is said to have been a large town during the period of Sūmra and Sammā rule in Sind. Kahu is variously supposed to have been destroyed as a result of the tyranny of King Dolora of Aror, or by Alla-ud-dīn of Delhi. There are several forts in different parts of the District, such as those of Islāmkot, Mithi, Naokot, and Singāla; but they are, comparatively speaking, of modern erection, having been built for the most part under the Tālpur dynasty. They are now fast falling into decay, and the materials are used for building purposes. The chief object of interest to the archaeologist is the ruined city of BRĀHMANĀBĀD, supposed to have been destroyed by an earthquake in the eighth century, and containing numerous relics of that period.

Population.

The population of the District has been: (1872) 230,038, (1881) 257,565, (1891) 358,181, and (1901) 363,894, showing a rise of 58 per cent. in thirty years. This great increase is largely due to the immigration from the Punjab and Rājputāna of settlers on the lands newly made available for cultivation by the construction of the Jāmrao Canal and other irrigation works. Since

1901 the population has further increased to 389,714, and is now (1906) distributed in *tālukas* as follows:—

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Umarkot . .	1,461	1	110	49,118	34	+ 14	385
Khipro . .	2,249	...	125	54,681	24	+ 16	498
Sanghar . .	830	...	72	40,341	49	− 2	318
Mīrpur Khās .	457	1	135	37,273	82	+ 34	772
Jamesābād . .	505	...	184	24,038	48	+ 25	445
Pithoro . .	481	...	128	37,713	78	...	Not available.
Sinjhoro . .	479	...	131	37,230	78	...	
Mithi . . .	1,563	...	46	26,154	17	− 29	517
Diplo . .	1,503	...	42	16,886	11	− 29	92
Chāchro . .	2,795	...	40	40,925	15	− 17	214
Nagar . .	1,618	...	31	25,355	16	− 38	398
District total *	13,941	2	1,044	389,714	28	+ 2	...

* Since the Census of 1901 two new *tālukas*—Pithoro and Sinjhoro—have been constituted.

The mean density of the population is 28 persons per square mile, the lowest average of any District in the Bombay Presidency. The languages spoken are Sindī and Kachhī (a dialect of Gujarātī spoken in Cutch). Formerly, when the District was administered by the Political Agent of Cutch, official correspondence was carried on in Gujarātī. Sindī is spoken by 229,893 persons, or 63 per cent. of the population. Musalmāns form 58 per cent. of the total, and Hindus 42 per cent.

The Musalmān population is largely composed of Baloch (60,000), among whom the Rind tribe are an important element, and of Sammā Sīndīs (52,000). Among Hindus, the trading Lohānas (32,000) are conspicuous here as elsewhere in Sind, and there are 16,000 Rājputs. The Soda tribe, formerly the dominant race in Thar and Pārkar, are of Rājput origin, and warlike in character; many of them enjoy *jāgīrs* or political pensions from the British Government. The rest are mainly low-caste or wild tribes, such as Dhers (31,000), Kolīs (13,500), and Bhīls (21,000). The Bhīls rank very low in the social scale, and, like the Kolīs, are much addicted to theft. The Udejas, who came originally from the west of Sind, are noticeable among the nomadic tribes of the District; they are a fine athletic race, well behaved, and inclined to turn to agricultural pursuits. Criminal tribes under the names of Wasan, Khaskheli, Kiria, and Rajar, known as Hurs or Lurs, are found in the District; but, taken as a whole, the inhabitants are now a peaceable folk, neither so litigious nor so quarrelsome as the rest of the Sind population. They place great reliance on *panchāyat* awards.

Agriculture supports 60 per cent. of the population, and industries 18 per cent.

The District contains only 30 Christians, of whom 5 are natives. The Zanāna mission secured a grant for a schoolhouse in 1905.

Agriculture.

There are throughout Thar and Pārkar District three seasons in which agricultural operations are carried on, namely, *kharīf*, *rabi*, and *adhāwa*; but the times of sowing and reaping differ somewhat in the Nāra tracts from those in the Thar or desert portion of the District. These differences can be best exhibited in a tabular form, and the two following tables are accordingly given, which show also the various crops produced in each season:—

NĀRA TRACTS

Seasons.	Time when		Description of crop.
	Sown.	Reaped.	
1. *Kharīf* .	June to middle of August.	Middle of October to middle of December.	Rice, *jowār*, *bājra*, *til*, cotton, tobacco, hemp, &c.
2. *Rabi* .	Middle of September to end of December.	January to April.	Wheat, barley, *sarihu*, *jāmbho*, and *kumba*.
3. *Adhāwa* .	February.	April and May.	Cotton, *jowār*, *mūng*, and melons.

THAR AND PĀRKAR

Seasons.	Time when		Description of crop.
	Sown.	Reaped.	
1. *Kharīf* .	June and July.	October and November.	*Jowār*, *bājra*, *til*, and *mūng*.
2. *Rabi* .	October and November.	March and April.	Wheat, barley, *jāmbho*, *sirsu*, and *kurar*.
3. *Adhāwa* .	January.	May and June.	Cotton, *jowār*, *mūng*, and water-melons.

The prevailing soil is a light loam called by the natives *gasar*, a medium between stiff clay and fine sand.

The chief statistics of cultivation in 1903–4 are shown in the table on the next page, in square miles.

Owing to the construction of the Jāmrao Canal and its branches, the cultivation of the District is increasing yearly. About 23 per cent. of the cultivable area is occupied and cultivated. The chief crops are: rice (116 square miles), *jowār* (17 square miles), *bājra* (711 square miles), wheat (160 square miles), cotton (172 square miles), and oil-seeds (64 square miles); pulses, fruits, and vegetables are also grown. Wild products include elephant-grass (*Typha elephantina*), from which hand-fans are made; *paban* or lotus plant; and various grasses from

which ropes and mats are manufactured. Rice and wheat are mostly cultivated in the irrigated areas.

Tāluka.	Total area.	Cultivated.	Irrigated.	Waste.	Forests.
Umarkot	1,461	317	83	240	35
Khipro	2,249	383	117	95	22
Sanghar	829	173	70	514	8
Mīrpur Khās	456	280	127	136	...
Jamesābād	505	274	143	187	...
Pithoro	479	340	126	98	3
Sinjhoro	480	291	116	98	...
Mithi	1,563	195	...	201	...
Diplo	1,503	48	...	128	...
Chāchro	2,795	570	...	51	...
Nagar	1,618	428	...	291	...
Total	13,938	3,299	782	2,039	68

Experiments attended with satisfactory results have been made in introducing superior descriptions of wheat and cotton, a soft white variety of the former having been introduced in the Nāra valley, where the area under this cereal averages some 30,000 acres annually. The American-Dhārwār cotton has showed fair promise, especially where sown on land irrigated by silt water, and the Assam and Egyptian varieties have been cultivated with some success. During the decade ending 1903-4 more than 2 lakhs was advanced to cultivators under the Land Improvement and Agriculturists' Loans Acts, of which Rs. 61,000 was advanced in 1902-3 and Rs. 29,000 in 1903-4.

Among domestic animals the only remarkable kind is a species of white ass, capable of carrying considerable loads, which is reported to be indigenous but may have been originally introduced from Persia.

Of the total area cultivated, 782 square miles, or 24 per cent., were irrigated in 1903-4. The canal system, which is confined solely to that part watered by the Nāra, there being no rivers or canals in the Thar and Pārkar proper, includes the Mithrao, JĀMRAO, and Eastern Nāra. The Eastern Nāra is a natural channel, and most probably at some remote period the outlet to the sea of the waters of some great river like the Indus, together with its branches, the Thar, Chor, and Umarkot Canals. The area irrigated by the main channel is 62 square miles and by the branches over 161 square miles, of which the Thar supplies 80 square miles. The Mithrao Canal was commenced in 1858-9, in order to irrigate the western or more elevated portions of this District. It is upwards of 93 miles in length (or with its branches, 155 miles), having its head in the Makhi *dandh* or weir. It supplies 237 square miles. The Jāmrao Canal, which irrigates 365 square miles in this District, was opened in 1899-1900. The supply is perennial.

The forests are of little importance. A few tracts recently 'reserved' supply timber, fuel, and fodder, but the supply largely exceeds the demand. In 1903-4 the forest receipts amounted to Rs. 3,622, of which over 78 per cent. was derived from grazing and fodder. The forests are in charge of the Deputy-Commissioner, who is *ex-officio* Divisional Forest Officer.

Salt-pans were worked to a small extent near Bakār until 1878, when they were closed. Soda is obtained from the *dandhs* and exported; and *chiroti*, a sulphate of lime or gypsum, is found near Ghulām Nabi-jo-got. In the Umarkot plains there is a very large extent of *pat* or salt waste, especially on the north-west side, bordering on Khipro and Hāla. All along the Nāra are *dandhs* for about 56 miles, from which much salt is produced, mostly used for the curing of fish. The manufacture or removal of salt, however, is strictly prohibited throughout the District. The only licit sources of supply are the deposits at Dilyār and Saran. In the Diplo and Mithi *tālukas*, extensive salt lakes contain almost unlimited supplies of this commodity.

Trade and communications.

The manufactures consist of woollen blankets and bags, camel saddles and covers, and coarse cotton cloths. Woollen rugs are manufactured by the Baloch who have settled in the Nāra valley and the desert. Women are very skilful in silk and cotton embroidery work, but the prices realized scarcely repay the labour. There are two cotton-cleaning and pressing factories at Mīrpur Khās and one at Shādipali. There are two rice-husking machines at Shādipali, and one at Dhoro Nāro, with an annual out-turn of 345,420 *maunds*. Salt is manufactured at Dilyār and Saran.

The District manufacturers have no direct communication with Karāchi or Bombay, but the European and native firms of Karāchi keep agents at Mīrpur Khās, Shādipali, Dhoro Nāro, and Umarkot. The exports from Thar and Pārkar consist principally of grain, wool, *ghī*, camels, horned cattle, hides, fish, salt, soda, and *pan* or *pana*, a kind of reed from which fans are made. The grain (chiefly rice and wheat), cattle, goats, and sheep are sent to Gujarāt, Pālanpur, and Jodhpur; hides and wool to Hyderābād; *ghī* to Cutch and Gujarāt; and salt, fish, soda, and *pan* to Hyderābād and Karāchi. The chief imports are cotton, metals, dried fruits, dyes, piece-goods, silk, sugar-candy, and tobacco.

A fair is held yearly at the town of Pithoro, near Akri, in the month of September, in honour of Pithora, a spiritual guide among the Mengwār community, and is attended by about 20,000 people, principally of that tribe. Several other small fairs are held in various parts of the District.

In addition to a number of roads which place the District in direct

communication with Hyderābād, the railway line between Hyderābād and Shādipali, which has been converted into a narrow-gauge line, has been pushed through the District to Jodhpur and Bikaner, and has been connected with the Rājputāna-Mālwā line at Mārwār junction since 1901.

Travelling in Thar, the desert portion of the District, is very tedious and difficult, owing to the sandhills which have constantly to be crossed. Umarkot, the chief town, is connected with Hyderābād by a good road, bridged throughout, except between Garhar and Sasebkethal. The lengths of road maintained by the Public Works department and the local boards are respectively 329 and 2,206 miles, all unmetalled. The length of roadside avenues is estimated at 128 miles.

Administration.

The Thar and Pārkar District is in charge of a Deputy-Commissioner, who is *ex-officio* District Judge and Superintendent of police, assisted by two Deputy-Collectors, one in charge of each of the two subdivisions. The District comprises the *tālukas* of CHĀCHRO, DIPLO, KHIPRO, MĪRPUR KHĀS, MITHI, NAGAR, JAMESĀBĀD, SANGHAR, and UMARKOT, together with the two newly formed *tālukas* of PITHORO and SINJHORO.

The chief judicial authority is vested in the Deputy-Commissioner, who exercises the jurisdiction of a District Judge. The Sessions Judge of Hyderābād acts as Sessions Judge for the District. Appeals lie from him to the Judicial Commissioner at Karāchi. Under him are Deputy-Collectors, who, in their judicial capacity, try civil cases up to Rs. 2,000 in value; there are also 7 *mukhtiārkārs*, empowered to decide civil cases up to Rs. 200 in value in the Nāra subdivision and Rs. 1,000 in the Thar. Civil courts are situated at the head-quarters of *tālukas*. The crime most rife is cattle-lifting. The Criminal Tribes Act (XXVII of 1871) was extended to the Hurs, a semi-religious sect of desperadoes, who for several years terrorized all Sind, and were finally shot down or captured in 1896.

In the Mithi and Islāmkot tracts, the Tālpurs are said to have formerly exacted two-fifths of the produce of land; but no regular revenue system was introduced by the British till the years 1830 and 1835, when disturbances at once took place. In 1850 the Umarkot and Nāra divisions were leased to Soda *zamindārs* on a light settlement; and at the end of 1854 the Commissioner of Sind, Mr. (the late Sir Bartle) Frere, introduced in the Thar a fixed assessment on a ten years' lease. Before that time the Government share was fixed annually after an inspection of the fields and an estimate of the crop. The District is now under the irrigational survey settlement, fixed in almost all the *tālukas* for a period of ten years. The present land revenue rates per acre are: garden land, Rs. 2–11 (maximum Rs. 3,

minimum Rs. 2–3); rice land, Rs. 2–10 (maximum Rs. 3, minimum Rs. 2–3); 'dry' land, R. 1–15 (maximum Rs. 2–6, minimum Rs. 1–6).

The collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	3,13	5,69	11,45	15,17
Total revenue .	3,48	7,60	12,64	17,56

There are three municipalities, UMARKOT, MITHI, and MĪRPUR KHĀS. Outside these, local affairs are managed by the District board and 8 *tāluka* boards. The total receipts and expenditure of these boards in 1903–4 were more than one lakh, of which Rs. 41,000 was spent on roads and buildings.

The Deputy-Commissioner is *ex-officio* Superintendent of police, and has an Assistant Superintendent and 2 inspectors.[1] There are 24 police stations. The total number of police is 606, of whom 14 are chief constables, 129 head constables, and 463 constables. The entire force is mounted. In addition to the subsidiary jail at Umarkot, there are 10 other subsidiary jails, in which 182 prisoners can be accommodated. The daily average number of prisoners in 1904 was 42, of whom one was a female.

Compared with other Districts of the Presidency, Thar and Pārkar stands last in education. The Diplo and Chāchro *tālukas* are the most backward. The literate population in 1901 numbered only 3,639 persons (or 10 per 1,000), including 37 females. In 1880–1 there were 11 schools with an attendance of 799 pupils; in 1890–1 the number of pupils rose to 2,650. In 1903–4 there were 164 schools with 4,733 pupils, of which 63 were maintained by local boards, 5 by municipalities, 27 were aided and 69 were private schools. In the Umarkot technical school, instruction is given in carpentry and smith-work. At Sanchor, schools for boys and embroidery classes for girls have been started among the Hurs. The total expenditure on education in 1903–4 was Rs. 34,000, of which Rs. 87 was derived from fees.

There are 7 dispensaries with accommodation for 50 in-patients. In 1904 the number of cases treated was 20,088, of whom 190 were in-patients, and 665 operations were performed. The total expenditure was Rs. 9,683, of which Rs. 6,103 was met from Local and municipal funds.

The number of persons successfully vaccinated in 1903–4 was 8,501, representing a proportion of 21·8 per 1,000, which is below the average for the Presidency.

[A. W. Hughes, *Gazetteer of the Province of Sind* (1876).]

[1] Since 1906 a police officer has been appointed to the office of District Superintendent.

Tharād.—Petty State in the Political Agency of Pālanpur, Bombay. *See* PĀLANPUR AGENCY.

Tharoch.—One of the Simla Hill States, Punjab, lying between 30° 55′ and 31° 3′ N. and 77° 37′ and 77° 51′ E., on the bank of the Tons. It has an area of 67 square miles, and the population in 1901 was 4,411. Tharoch formerly formed part of Sirmūr State. When it fell under the dominion of the British, Thākur Karm Singh was the nominal chief; but, on account of his great age and infirmities, his brother Jhobu conducted the administration. In 1819 a *sanad* was bestowed on Jhobu, conferring the State on him and his heirs after his brother's death. This *sanad* was confirmed in 1843 by another granted to Thākur Ranjīt Singh, in which claims for forced labour (*begār*) were commuted for a payment of Rs. 288. The present chief is Thākur Sūrat Singh, during whose minority the administration is in the hands of the Wazīr. The revenue is estimated at Rs. 40,000.

Tharrawaddy District.—District in the Pegu Division of Lower Burma, lying between 17° 31′ and 18° 47′ N. and 95° 15′ and 96° 10′ E., with an area of 2,851 square miles. It is bounded on the north by Prome District; on the east by the Pegu Yoma; on the south by Hanthawaddy District; and on the west by the Irrawaddy river, which, running in a south-easterly and southerly direction, separates it from Henzada. Tharrawaddy consists chiefly of alluvial plains of a flat and uninteresting character. On the western border near the river there is a good deal of marsh land; on the east the hills of the Pegu Yoma, dividing it from Pegu District, reach an altitude of about 2,000 feet. This eastern range forms the parting between the Irrawaddy and Sittang rivers, and is thickly covered with forests. The Irrawaddy skirts the District for 46 miles on the western border. The only other river of importance is the Myitmakā, which, rising in a lake known as the Inma in the south of Prome District, and fed by streams from the Pegu Yoma in the east, runs southward for 53 miles, entering Hanthawaddy District at Myitkyo, where it becomes the Hlaing, and finally flows into the sea as the Rangoon river. The Myitmakā is important as forming the channel of the timber trade of the District. The watershed between the Myitmakā and the Irrawaddy is low and indistinct.

Physical aspects.

The soil of the low-lying portion is alluvial, and its geological history is no doubt a history of the two rivers which drain it. The main geological features of the PEGU YOMA have been described in the separate article on the range. None of the hills can be assigned to an era earlier than the Miocene or Middle Tertiary. Though low in altitude, the Pegu Yoma is steep and difficult to cross, owing to the heavy rainfall which tends to wash away the top soil. A curiosity

of this range is the natural granite bridge called Kyauktadā, or 'stone bridge,' which stretches for a length of 560 feet over a chasm, and is quite bare of all vegetation.

There are no mangrove or tidal forests in the District. True evergreen forests are practically unknown, so that the constituents of the vegetation fall under varieties of deciduous forests (described under PEGU DISTRICT) and savannah forests bordering the Irrawaddy (described under HANTHAWADDY DISTRICT).

Among the wild animals found are elephants, tigers, leopards, rhinoceros, bison, *tsine* or *hsaing* (*Bos sondaicus*), *thamin* or brow-antlered deer, bears, and feathered game such as peafowl, pheasant, partridge, snipe, ducks, &c.

The climate is comparatively mild and damp, though in the plains in April, which is the hottest month, the thermometer rises at times to 103° in the shade. Rain generally falls at the latter end of this month, though it cannot be relied on till May, when the heat is certain to be allayed by thunder showers, the precursors of the monsoon, which begins about the first week in June and continues with little interruption till October. During the latter month the showers become scantier, and gradually cease altogether till the following May, except perhaps for a slight fall about Christmas. The average annual rainfall for six years at the principal recording stations is given below in order of latitude, from south to north: Tharrawaddy, 79 inches; Monyo, 64 inches; Okpo, 61 inches; Gyobingauk, 60 inches; Zīgon, 58 inches; Tapun, 49 inches; and Nattalin, 57 inches. It will be noted that there is a well-marked decrease northwards, and the protective influence of the Arakan Yoma in the west makes itself more and more felt. The rainfall is on the whole reliable, and serious scarcity is unknown. The riverain portion of the District is subject to floods from freshes in the Irrawaddy, but these are never of a really serious character.

History.

In the eighteenth century Tharrawaddy was the name for a considerable tract of country lying between the Irrawaddy and the Pegu Yoma, of which the present District now forms only a part. When the Pegu province was annexed after the second Burmese War, Tharrawaddy and what is now Henzada District formed a single District called Tharrawaw, and the history of Henzada and Tharrawaddy is identical up to the year 1878. Previous to annexation Tharrawaddy had been a portion of the Talaing kingdom of Pegu, which was added to the Burmese empire by Alaungpayā in 1753. Apart from this it has no special history: it seems never to have had any independent political existence, and the inhabitants would appear to have taken no prominent part in the wars between the Burmans and the Peguans. At the beginning of

the nineteenth century Tharrawaddy was the apanage of a scion of the royal house, who subsequently became infamous under the title of Prince Tharrawaddy. Clever and open-hearted, but ambitious and cruel, this lordling turned his grant into a nest of robbers, of whom he made use in 1837 to dethrone his brother Bagyidaw. Tharrawaddy has long been notorious for the ill repute of its inhabitants, and there can be no question that this criminal taint is largely a legacy from the myrmidons of this aristocratic ne'er-do-well. During the first Burmese War no resistance was offered to the advance by river of Sir Archibald Campbell. In the second war, after the annexation of the province of Pegu (including Tharrawaddy District), the line of such resistance as there was appears to have followed the western bank of the river. The chief source of disturbance in these parts was the disbanding of the Burman police, of which force each *thugyi* controlled several hundreds. Deprived of occupation by the conquest of the province, and encouraged and led by men holding commissions from the court at Ava, these *ex*-police kept the whole country south of the Akauktaung in a ferment. In Tharrawaddy a man named Gaung Gyi was the leader. An hereditary *thugyi* of a small circle, he had been deposed by the Burmese government for refusal to pay his quota of tax, and a relative of his was appointed in his stead. This relative he expelled at the breaking out of war, and, being secretly supported by the Burmese court, he was able to establish something like a reign of terror in the District. It was not till 1855 that, by the united exertions of Captains D'Oyley and David Brown, he was forced to fly into Burmese territory. The District has had various head-quarters: Tharrawaddy, Henzada, Myanaung, and Henzada in succession. In 1878 the present District was formed with its existing head-quarters, a cluster of official buildings surrounded by paddy-fields, without any recommendations, either political, commercial, or geographical. There are no important pagodas, and what archaeological remains there are have hitherto received but little attention.

Population.

The population increased from 171,202 in 1872 to 272,001 in 1881, 339,240 in 1891, and 395,570 in 1901. Its distribution in 1901 is shown in the table on the next page.

Like Henzada and Prome, Tharrawaddy would seem to have exhausted its attractions for immigrants, for the increase during the past decade has been small. It remains to be seen whether the new railway to Henzada and Bassein, a portion of which passes through it, will accelerate the increase in the future. After Ma-ubin, Henzada, Hanthawaddy, and Sagaing, however, Tharrawaddy is still the most thickly populated District in Burma, with a density of 139 persons

per square mile. The five towns are LETPADAN, GYOBINGAUK, THONZE, ZĪGON, and MINHLA. The first three are municipalities, and have grown largely within recent years, the railway being responsible for the rise in each case. The majority of the population (378,600) are Buddhists. Compared with the adjoining Districts of Pegu and Hanthawaddy, the total of Musalmāns (3,100) and Hindus (8,500) is small. It is higher, however, than in Prome, its neighbour to the north, and the foreign element is strong enough to keep the total number of females below that of males. Burmese speakers in 1901 numbered nearly 358,000, and Karen was spoken by nearly 21,000 persons.

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population in 1901.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Tharrawaddy	391	1	228	53,940	138		
Letpadan	526	1	213	56,098	107	+ 29	30,013
Minhla	627	1	468	86,939	139	+ 16	24,846
Monyo	182	...	172	39,964	219	+ 15	11,655
Gyobingauk	431	2	411	91,040	211	+ 8	25,862
Tapun	694	...	327	67,589	97	+ 12	16,985
District total	2,851	5	1,819	395,570	139	+ 17	109,361

NOTE.—The Tharrawaddy township was formed after the Census of 1901.

Burmans form the greater proportion of the population (355,500). Karens are numerous (21,200), and there is a fair sprinkling of Shans. On the other hand, the District, unlike Hanthawaddy and Pegu, shows very few Talaings. The return of castes shows that railway construction must have been responsible for the presence of a large number of the Hindus enumerated at the Census of 1901. Tharrawaddy has a large agrarian community. In 1901, 301,710 persons, or 76 per cent. of the population, were returned as dependent, either as actual workers or otherwise, on agriculture. Only 9,100 persons were supported by *taungya* or 'hill-slope' cultivation.

The number of Christians (4,301) is fairly large. Of the total, 4,138 are natives. Missions have been established by the Roman Catholics at Thonze and Gyobingauk, and by the American Baptists at Tharrawaddy, Thonze, and Zīgon. More progress is made by the missionaries among the Karens than among the Burmans.

Agriculture.

The soil of Tharrawaddy is extremely fertile, and, with the abundant rainfall usually received, requires little manure and no irrigation, except on the high banks of creeks, where primitive wheels are used to raise water for crops of betel-vine, vegetables, maize, &c. The cultivated portion falls naturally into several tracts: the country bordering the hills, where cultivation is

sparse, but on the increase; the great central paddy plain, which stretches east of the Myitmakā stream; and the submerged tract between that river and the Irrawaddy, where the soil is a rich clay, but where continual floods are liable to destroy the crops. Taking rainfall as a basis for further differentiation, the six most northerly circles of the District may be classified together as a fourth natural tract. They receive only about two-thirds the amount of rain that falls in the circle of Thonze, and are, moreover, farther from their market. Thus their produce and profits are diminished at the same time, and economically they stand on a footing different from the rest of the District.

There is nothing distinctive or peculiar in the methods of cultivation in the plains. Rice is grown in the usual way, by transplantation. In the submerged tracts certain lands are flooded when the river rises, and rice cannot be transplanted till late in September. These lands are known as *tāse*, and, notwithstanding the late transplantation, their yield is double that of adjacent unflooded land. In the hills *taungya* or 'hill-slope' cultivation is resorted to, while garden and orchard produce is very successful along the banks of the streams.

The holdings are mostly small, and the cultivators fall under the class of peasant proprietors. There is no distinct landlord class: the husbandman ordinarily works his own land, and if that is not sufficient to employ him rents another piece from his neighbour.

The following table exhibits, in square miles, the main agricultural statistics for 1903-4:—

Township.	Total area.	Cultivated.	Forests.
Tharrawaddy	391	97	
Letpadan	526	112	
Minhla	627	177	1,349
Monyo	182	55	
Gyobingauk	431	189	
Tapun	694	97	
Total	2,851	727	1,349

The principal crops in the order of their importance are rice, orchard and garden produce, peas, tobacco, and miscellaneous food-crops, including vegetables, sesamum, sugar-cane, and maize. The cultivated area was 555 square miles in 1891, and 685 square miles in 1901. Garden cultivation occupied 20 square miles of the total in 1903-4, and rice 687 square miles, the principal kinds being *kaukkyi*, *kaukngе*, *kaukhnyin*, and *ngakyauk*, all harvested during the cold season. *Kaukkyi* furnishes the best table rice; it is, however, more liable to damage from floods and drought than any other kind,

and the price is generally Rs. 10 per 100 local baskets higher than for ordinary rice. *Kaukngé* has a shorter seed than *kaukkyi*, but includes many varieties. It is the rice referred to in market quotations. *Kaukhnyin* is a long glutinous rice which is not boiled but steamed, and forms the morning meal of the agricultural classes. It is also much used for making *seinye* or rice beer. Vegetables include sweet potatoes, brinjāls, and tomatoes. The usual fruits of Lower Burma are grown in the orchards, such as mangoes, jack-fruit, plantains, pineapples, marian plums, coco-nuts, and guavas. The greater part of these orchards are situated in the Tapun and Gyobingauk townships. The cultivation of all crops is on the increase, except in the case of sesamum, the growth of which has been discouraged of late by frequent floods. There has been an increase in sugar-cane, which may be accounted for by the fact that new grants are planted with this crop before the soil is ready to go under the plough for rice cultivation. The extension in the area under rice may be attributed to the opening of the new railway line to the Irrawaddy, and to local causes such as the construction of the Paukkon-Aingtalok embankment, and the absence in late years of high floods in the Bilin and Shwelaung circles. About 4,700 acres of tobacco are grown on the alluvial soil near the Irrawaddy.

There has been no improvement either in quality by selection of seed, or in kind by the introduction of new varieties. Havana tobacco seed is distributed by Government, but has attained no success hitherto. The Land Improvement and Agriculturists' Loans Acts appear to be appreciated by the cultivators, for the annual advances vary from Rs. 13,000 to Rs. 23,000. Advances are most popular in the townships of Gyobingauk and Tapun.

Horned cattle, including bullocks and buffaloes, present no special peculiarities of breed, but the latter are more used for ploughing than the former. Ponies are fairly plentiful, but the climate is not very suitable for horseflesh. Two Government stallions are, however, kept at the head-quarters of the District. Goats are bred to a small extent. Fodder is plentiful, and from December to June cattle are allowed to wander freely over the country; it is only in September, when the young rice plants are being transplanted, that grazing grounds are really needed. There are 437 of these, covering an area of 48,110 acres.

There is no artificial irrigation; tanks and wells are used solely for storing drinking-water for man and beast, the largest reservoir being that at Gyobingauk. Artesian wells are in contemplation at several places; in fact, one or two have already been sunk, but they are not yet in working order. The District contains a number of inland fisheries, both along the Irrawaddy and in the basin of the

Myitmakā. That yielding the largest revenue is known as the Tanbingyaung fishery in the Letpadan township; that covering the largest area is at Pangabin in the Monyo township. Practically the whole of the fish-supply is consumed locally. The fishing industry is profitable, but is not susceptible of much development.

Forests, &c.

Three chief types of forest may be distinguished. The first of these is the forest of the Pegu Yoma. This great mass of woodland, in which teak of the best quality is found in the greatest abundance, lies on the western slopes of the Pegu Yoma. Here the forests are of the upper mixed deciduous type, in which teak is found associated with *Xylia dolabriformis* (*pyingado*), *Bombax insigne*, *Lagerstroemia Flos Reginae*, *Homalium tomentosum*, and many other species. Cutch is plentiful in the northern parts of the District, where the rainfall is lighter than in the south. Bamboos of many kinds form a characteristic feature of these forests. The second main type of forest is known as *indaing*. The Yoma forests are frequently skirted by a stretch of *indaing*, on laterite soil, the chief timber tree present being *in* (*Dipterocarpus tuberculatus*), which is associated with *ingyin* (*Pentacme siamensis*), *Melanorrhoea usitata*, *Strychnos Nux-vomica*, &c. The third main type may be denominated the plain forests. These are situated on the alluvial plains, which are more or less inundated with water during the rains. Teak is not always found in them, and when present is usually of inferior quality. The District contains 736 square miles of 'reserved' forests, and 613 of 'unclassed.' Regular working-plans are in force for 698 square miles of Reserves. There are 494 acres of regular plantations, and 19,362 of *taungya*; these are chiefly of teak. The Myitmakā is the main timber-rafting river of the District. Sanywe, a village on the banks of this stream, is the dépôt where the teak and other timber destined for Rangoon is measured and passed. The total revenue from the forests of Tharrawaddy in 1903–4 was 13·5 lakhs.

A forest school was opened in 1899 in Tharrawaddy, at which Burman Forest subordinates are trained in their duties. The course lasts two years, and the number of students admitted annually is twelve. Though intended primarily for Government servants, private students are allowed to enter the school. The divisional Forest officer is director of the school, and there is a teaching staff of one European and two Burman instructors.

Minerals of value have never been discovered, but pottery clay and laterite are found, as they are almost everywhere in Lower Burma. Both are worked under a licence from the Government; but the business of extraction is taken up as a subsidiary occupation in the dry season, and not as a special means of livelihood.

Cotton-weaving is carried on in almost every large village in the

Zigon subdivision, but the industry is declining owing to the introduction of cheap clothing materials of foreign manufacture imported from Rangoon. Even at the existing looms, where rough *pasos*, *longyis*, and blankets are the chief articles produced, imported twist and yarn are used instead of homespun cotton. The produce of these looms is confined to the requirements of the family. Occasionally, however, cotton dusters in fancy check are exhibited for sale in the markets, but not in any large quantity. Gold- and silversmiths are plentiful, who turn out rings, necklaces, *nagats*, *nadaungs*, bangles, anklets, bowls, and betel-boxes in the precious metals; their handiwork is not, however, thought equal to that of their brethren in Prome. Iron and pottery are worked, but only for domestic purposes. The latter industry is suffering, it is said, from the competition of foreign-made metal cooking pots. Mat-weaving is carried on, the material chiefly used being bamboo, though the more expensive *thinbyu* mats, prized for their softness and flexibility, are sometimes woven; bamboo matting for the walls of huts is also manufactured, but is being driven out by corrugated iron. The use of sewing machines is becoming common in all the principal towns. There are five steam saw-mills in the District, each of which employs between 30 and 40 hands.

Trade and communications.

Rangoon is the natural market for such of the produce as is exported, including paddy, timber, and vegetables. The chief imports are European goods of all sorts, wearing apparel, piece-goods (cotton and silk), besides dried fish and oil and salt from the neighbouring Districts. The channels of trade are the railway, and the Irrawaddy and Myitmakā rivers. The transport of timber and bamboo follows the waterways chiefly, but an enormous amount of paddy is taken down by the railway in the season. Boat traffic is, however, a much cheaper means of transport than rail, partly because the rolling-stock of the railway is unable to cope with the volume of paddy traffic, and partly because the boat-owner does not have to pay demurrage if the rate current on his arrival at the market does not happen to suit him. Trading is not confined to one class or one nationality; practically all members of the community engage in it, to some extent at any rate. Brokers and money-lenders figure largely in all business transactions. The larger brokers get advances from Rangoon firms on mortgage security, and buy paddy on a fixed commission; the lesser men get smaller contracts from them and a smaller commission. Others again only introduce sellers to the brokers. It is not uncommon for one man to combine several businesses and to have several partners. Such combination, further complicated by a defective system of account-keeping, is a frequent cause of litigation. Timber is worked by contracts under the Forest department. The actual and nominal

contractor is generally financed by some sleeping partner, who takes little or no active part in the extraction of the logs. Considerable fortunes are amassed by judicious investment; and a rich man in this District may, in most cases, safely be presumed to have made his money by paddy or timber trading, or from lawsuits arising out of dealings in connexion with one or other of these commodities.

The District is crossed by 61 miles of the railway from Rangoon to Prome, with 13 stations on this portion of the line. A branch of 26 miles has recently been opened from Letpadan westwards to Tharrawaw on the Irrawaddy, opposite Henzada, being part of an extension to Bassein. The main line connects all the most important trade centres in the District: namely, Zīgon, Gyobingauk, Minhla, Letpadan, and Thonze. About 211 miles of metalled roads are maintained, of which 161 are kept up from Provincial funds. The chief of these is the Rangoon-Prome road, mile 70 to mile 139, and various loops and diversions from this thoroughfare, e.g. from Zīgon to Tapun and Gyobingauk, and from Minhla to Letpadan. The 50 miles of metalled roads kept up by Local funds are principally town roads and footpaths. There are 19 miles of unmetalled roads, of which 15 miles (from Sanywe to Thayetchaung) are provided for from Provincial, and the remainder from Local funds. The chief means of communication by water is the Irrawaddy river, navigated by the Irrawaddy Flotilla Company's steamers, and the Myitmakā with its tributary creeks which are capable of carrying boats with a load of several hundred bags of rice in the wet season as far as the railway line, but are practically dry from November to May. A steam ferry plies between Tharrawaw and Henzada, connecting the two sections of the new railway. There are also seventeen boat ferries on the Myitmakā river, two on the Kantha creek, and one on the Irrawaddy.

Administration.

Tharrawaddy District is divided into two subdivisions. The northern, Zīgon, comprises three townships: GYOBINGAUK, TAPUN, and MONYO. The southern, Tharrawaddy, also comprises three: THARRAWADDY, LETPADAN, and MINHLA. With the exception of Tapun and Monyo, all these townships have their head-quarters on the railway. They are in the charge of Burman magistrates, who are responsible for the preservation of order and the collection of revenue.

At head-quarters are a treasury officer and an *akunwun* (in subordinate charge of the revenue administration of the District), and a superintendent of land records with a staff of 4 inspectors and 45 surveyors. The District forms (with Prome) the Tharrawaddy Public Works division, being divided into two subdivisions, Tharrawaddy and Letpadan. It also forms the Tharrawaddy Forest division, with two subdivisional officers at Zīgon and Tharrawaddy.

Civil judicial work is disposed of by nine regular courts: the District court, the subdivisional courts at Tharrawaddy and Zigon, and the six township courts. All business in the District court is transacted by the District Judge, who divides his time between Tharrawaddy and the adjoining District of Prome. Special township judges do the civil work in all the townships except Monyo. There are 681 village headmen, of whom 29 have received special civil powers, and dispose of about ten cases each annually.

The criminal work is divided between the District, subdivisional, and township magistrates and the Divisional and Sessions Judge of Prome, who visits Tharrawaddy about once in two months to try such cases as are committed to him. There are 18 headmen with special criminal powers. Tharrawaddy has long had a bad reputation for the more serious forms of crime, especially dacoity, robbery, and cattle-theft. These, however, have considerably declined, and the most serious crimes now prevailing are murder and grievous hurt, especially by stabbing; in almost every case the use of intoxicating liquors is found to be the exciting cause. The decline of cattle-theft and violent crimes affecting property is due to the stringent enforcement of the Village Act and the energy of the police. The civil work calls for no special comment except with regard to its steadily increasing volume.

Before the annexation of Pegu the land revenue of Tharrawaddy was insignificant in comparison with that of the adjacent District of Henzada, the receipts from the tax on plough oxen or rice land being only Rs. 970, compared with Rs. 76,440 collected in the last-named District. The past fifty years have bridged over this marked difference. The first revenue settlement was undertaken more than forty years ago, when the rates varied from R. 1 to Rs. 2 per acre. By 1880, the area cultivated and the land revenue had doubled; and in that year a summary increase of 4 annas per acre was made on all land except in the tracts remote from the railway. Between 1880 and 1884 a detailed settlement was effected. The rates then proposed, which varied from Rs. 2–4 to 12 annas per acre on rice land, came into force in 1884–5. The assessment was revised in 1900–2. The present rates vary from Rs. 3–4 to R. 1 per acre of rice land; garden land pays from Rs. 2 to Rs. 2–8; and sugar-cane grown as a *ya* crop, Rs. 4 per acre. The average extent of a holding is 11 acres. The system of collection was originally through the medium of circle *thugyis*, of whom there were at one time 61. The jurisdictions of these officials were often unduly large; but the remuneration of a 10 per cent. commission attracted a class of men with a good education and a knowledge of surveying, superior in every way to the village headman, or *ywathugyi*, who not infrequently collected the revenue for

the circle (or *taik*) *thugyi*, but drew no commission. The system of collection by village headmen is now being introduced as circles fall vacant. At present there are seventeen circles in which there are circle *thugyis*, who draw full commission, while fourteen circles have recently been broken up, and the revenue in them is now collected by 338 village headmen.

The following table shows, in thousands of rupees, the growth of the revenue since 1880–1:

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	3,50	5,70	8,50	11,22
Total revenue . .	8,70	9,90	15,98	23,27

The total revenue for 1903–4 includes Rs. 3,77,000 from capitation tax and Rs. 5,17,000 from excise.

There is a District cess fund, maintained chiefly by a levy of 10 per cent. on the total land revenue, and administered by the Deputy-Commissioner, for the upkeep of roads and the provision of other local necessities. Its income in 1903–4 was Rs. 1,60,700, and of this total Rs. 63,000 was spent on public works.

There are three municipalities, THONZE, LETPADAN, and GYOBINGAUK; and two town committees, ZĪGON and MINHLA.

The police are under a District Superintendent, who has two subdivisional officers with jurisdictions corresponding to the civil subdivisions. The strength of the civil police force has been recently considerably augmented, and now consists of the following: 4 inspectors, 3 chief head constables, 9 head constables, 43 sergeants, and 406 constables. There are 11 police stations and 4 police outposts in the District. Military police are stationed at Letpadan, Minhla, Monyo, Gyobingauk, Zīgon, and Tapun, and also at the District head-quarters. There are no jails or reformatories, convicted prisoners being sent to the Rangoon and Insein jails to serve out their sentences. There is, however, a lock-up for the temporary detention of prisoners at the District head-quarters.

The standard of education is high even for Burma. Although the proportion of literate males, 48·4 per cent., does not exceed that of the illiterate, as it does in a few of the Upper Burma Districts, it is higher than in any other District of Lower Burma except Thayetmyo. For males and females together the proportion is 27·6 per cent. Education is chiefly in the hands of religious bodies, Buddhist monks, French Roman Catholic priests, and American Baptist missionaries. The number of pupils was 2,615 in 1881, 5,646 in 1891, and 9,421 in 1901. In 1903–4 there were 21 secondary, 146 primary, 130 elementary (private), and 3 special schools, attended by 10,470 pupils (1,870

females). The expenditure on education was Rs. 52,300; of which Rs. 23,800 came from the District cess fund, Rs. 7,300 from municipal funds, and Rs. 6,800 from Provincial funds. The fees amounted to Rs. 14,200. Educational progress has been steady during the past five years. Secondary education has declined in the Letpadan and Gyobingauk townships, but has increased in Minhla and Monyo. The growth in the popularity of education is much more marked in primary than in secondary schools, the latter remaining stationary, while the former have increased by nearly 15 per cent. since 1900. Female education has increased by 52 per cent. in the same period.

The District possesses 8 hospitals, containing 96 beds, as well as 2 railway dispensaries. In 1903 the number of cases treated was 68,748, of whom 1,770 were in-patients, and 1,058 operations were performed. The hospitals are maintained almost entirely from Local (town and municipal) funds, the expenditure on them amounting to Rs. 29,000 in 1903.

Vaccination is compulsory only in the three municipalities. In 1903-4, 11,428 persons were successfully vaccinated in the urban and rural areas, representing 29 per 1,000 of population.

[E. A. Moore, *Settlement Reports* (1902 and 1903).]

Tharrawaddy Subdivision.—Southern subdivision of Tharrawaddy District, Lower Burma, comprising the THARRAWADDY, LETPADAN, and MINHLA townships, with head-quarters at Tharrawaddy town.

Tharrawaddy Township.—Southern township of Tharrawaddy District, Lower Burma, lying between 17° 31′ and 17° 58° N. and 95° 33′ and 96° 5′ E., with an area of 391 square miles. In 1901 it formed part of the Letpadan township. The population in 1901 of the area separated was 53,940, distributed in 228 villages and one town proper, THONZE (population, 6,578). The head-quarters are at THARRAWADDY TOWN. The township is level throughout, except in the east, where it abuts on the Pegu Yoma. There were 97 square miles cultivated in 1903-4, paying Rs. 2,13,000 land revenue.

Tharrawaddy Town.—Head-quarters of Tharrawaddy District, Lower Burma, situated in 17° 40′ N. and 95° 48′ E., on the Rangoon-Prome railway, 68 miles from Rangoon in a north-westerly direction. Population (1901), 1,693. Tharrawaddy may be regarded more or less as a suburb of the municipality of THONZE, 2 miles to the south, with which it is connected by road and railway. The Rangoon-Prome road passes through the town, which occupies a well-wooded and compact area, but low-lying. It contains a hospital, the usual District head-quarters offices, the Forest school, the residences of the local officials, and some mission buildings. The roads are good and well lighted, the cost of lighting being met from the District cess fund. It is said to have been selected as the head-quarters on account of its

good water-supply, after attempts to establish the District court first at Gyobingauk, and then at Kunhnitywa, had failed owing to bad water in those places. It is named after an ancient capital, which existed about 7 miles to the east of Gyobingauk, where traces of the moats and walls may still be seen.

Thāsra.—North-eastern *tāluka* of Kaira District, Bombay, lying between 22° 38′ and 22° 58′ N. and 73° 3′ and 73° 23′ E., with an area of 257 square miles. It contains one town, DĀKOR (population, 9,498), and 96 villages. The population in 1901 was 73,980, compared with 75,622 in 1891. The density, 288 persons per square mile, is much below the District average. The head-quarters are at Thāsra. The land revenue and cesses in 1903–4 amounted to more than 2·1 lakhs. To the north and north-west the upland is bare of trees and poorly tilled. Towards the south the plain, broken only by the deep-cut channel of the Shedhi, is rich and well wooded. The water-supply is scanty.

Thato.—*Tāluka* and town in Karāchi District, Sind, Bombay. *See* TATTA.

Thaton District.—A sea-board District in the Tenasserim Division of Lower Burma, lying between 16° 28′ and 17° 51′ N. and 96° 39′ and 98° 20′ E., and comprising the greater part of the country on each side of the lower reaches of the Salween river, with an area of 5,079 square miles. Its shape may be described as a four-sided figure, fairly regular, save for an indentation in the north caused by Salween District, of which the base or south-eastern side is inclined at a slope of rather less than 45° to the line of the equator; the angles at its four corners lie roughly at the four quarters of the compass. The northern angle is formed by the junction of the Salween and Thaungyin rivers, of which the latter forms the north-eastern boundary of the District, dividing it from Siam. The eastern angle is a point on the Thaungyin river about 70 miles to the south-east of its junction with the Salween. The south-eastern boundary, dividing it from Amherst District, is defined for the most part by the Hlaingbwe and Gyaing rivers, and the southern angle is marked by the junction of the latter of these streams with the Salween. The south-western boundary is the Gulf of Martaban; and the mouth of the Sittang river, which flows into the sea to the west of the Salween, lies at the western angle of the District. The north-western boundary divides Thaton from the Districts of Pegu, Toungoo, and Salween, and runs for the greater part of its length along the valleys of the Sittang and Salween and their tributaries. The District is intersected by a number of hill ranges, which may be divided

Physical aspects.

into three main groups. In the east and north-east towards the Siam frontier is the Dawna range, its ridges varying in height from 1,000 to 5,500 feet, which cuts off the valley of the Thaungyin river from the rest of the

District. The range starts in the extreme north, and runs in a general south-easterly direction down the edge of Thaton and Amherst towards the Malay Peninsula. Divided from this range by a plain stretching for 50 to 60 miles across the valleys of the Salween and the Hlaingbwe is a much smaller system of hills, which may be regarded as the upper end of the well-defined Taungnyo range separating the Ataran valley in Amherst District from the seaboard townships. In Thaton District this upland is continued in the Martaban hills, starting opposite Moulmein on the farther side of the Salween and running, first north-west and then north, into Salween District. From this range to the sea on the west extends a rice plain, intersected by countless tidal creeks, and stretching up to the Sittang. In the north-west of the District, between this second ridge and the Sittang estuary is a limestone range (part of the Paunglaung system), which enters the District from the north and branches into spurs ending at Kyaikto and Bilin. The western spur is known as the Kelatha hills, and rises to an altitude of 3,650 feet opposite the village of Sittang. It is practically isolated from the main mass of the Paunglaung system.

Thaton is watered from end to end by numerous streams. The easternmost is the Thaungyin river, which rises in Amherst District, runs in a north-westerly direction, dividing Burma from Siam, and finally, after a course of about 200 miles, meets the Salween river in the north of the District. It is useful for floating down forest produce, but its numerous rapids detract from its value. The Hlaingbwe rises in the wedge of country between the Thaungyin and Salween rivers, where the Dawna range takes off, and flows for 120 miles to meet the Haungtharaw river in the south. Here the combined streams, under the name of the Gyaing, form the south-eastern border of the District, and run for 45 miles in a general westerly direction to join the Salween just above Moulmein. The SALWEEN itself enters Thaton in its northern corner, separating it for some distance from Salween District. At about 17° 20′ N. latitude it enters the Pa-an township, and thence its channel divides the District roughly into two halves, east and west. It pursues its southerly course down to Moulmein, where its waters are divided by the Bilugyun island into the two main mouths through which it flows into the sea. A few miles above Moulmein it is joined from the west by the Donthami (or Binhlaing) river, which rises in the hills on the northern border of the District, and winds down the eastern edge of the Martaban range. The area to the west of the Martaban hills is intersected by a network of tidal creeks, which give internal communication between Moulmein, Thaton, the Bilin, Kyaikto, and the Sittang. This tract is watered by only one large river, the Bilin, which rises in Salween District, and flowing between the Martaban and Bilin hills, enters the Gulf of Martaban

after a course of 280 miles. The SITTANG, for the last 40 miles of its course, forms the western boundary of the District. It has done much damage lately by eroding the rice plain on the left bank near its mouth, destroying about 5,000 acres annually, while new land has been thrown up in Hanthawaddy and Pegu Districts on the opposite bank. Pegu has thus gained an area not far short of 100 square miles during the past twenty years.

Very little is known of the geology of Thaton. The Martaban and Dawna hills are of laterite, and the Bilin and Kelatha hills of a limestone formation, belonging to what has been denominated the Moulmein series of rocks. Isolated limestone hills, of the age of the Carboniferous limestone of Europe, occur frequently in the north-eastern portion of the District, illustrating the denudation to which the Palaeozoic beds of the Salween valley have been subjected. The low-lying tract to the south-west of the District has emerged within historical times from the sea; but it is not clear how far this has been due to the elevation of the sea-bottom, and how far to the level of the land being raised by deposits of silt.

The flora is of the type ordinarily met with in the wet areas of Lower Burma (*see* HANTHAWADDY DISTRICT). The main timber trees are referred to below under the head of Forests.

A few wild elephants are to be found in the north-west and north-east of the District. Leopards abound, and venture at times into the purlieus of Thaton town. Tigers are not numerous, but bears are common. The barking-deer and hog deer are fairly plentiful in parts. Near Pagat on the Salween the serow is found in the hills. The District is remarkable for the scarcity of wild-fowl of all kinds. Very few of the migratory ducks appear to visit it.

The climate, though moist and oppressive, is in general salubrious, exhibiting no extremes of heat or cold; and the littoral tract generally enjoys a cool breeze from the Gulf of Martaban. The average mean temperature in Thaton for four typical months during the decade ending 1901 is as follows: January, 74°; April, 84°; July, 77°; October, 82°. The rains are heavier in Thaton than in any other District in Burma, except, perhaps, Tavoy and Sandoway. The average annual rainfall recorded for the six years ending 1901 was 201 inches at Thaton and 196 inches at Bilin, a village a little farther north but about the same distance from the coast.

History.

The District comprises the larger portion of the ancient kingdom of the Mons or Talaings, known in Pāli literature as Ramannadesa, a name famous in sacred legend as the first repository of the Buddhist scriptures in Burma. Tradition points to Thaton town as the cradle of Buddhism in Burma; but Dr. Forchhammer has shown weighty reasons for placing the earliest

Talaing capital rather at TAIKKALA or Kalataik, which he identifies with the Golamattikanagara of the Kalyāni inscriptions. This interesting place lies at the foot of a hill range in the Bilin township, the eastern and western slopes of which are still covered with ruins in an advanced state of decay, and is indubitably of great age. At the same time there can be no question that the present town of Thaton is a site of considerable antiquity, and it is probable that the ancient ruler Thāmala proceeded westwards from here to found the city of Pegu. The town of Martaban (Burmese, *Moktama*), exactly opposite Moulmein on the right bank of the Salween, is said to have been built about the same time as Pegu, namely A.D. 575. Whether Martaban or Thaton remained the capital of the eastern section of the Talaings after the foundation of Pegu is doubtful; but during the eleventh century Anawrata, the king of Pagan, overran Pegu and is said to have demolished the city of Thaton, so that it seems probable that the seat of government was even then at that town. In any case Martaban was refounded in 1269 by a king of Pagan, and probably succeeded politically to the position which Thaton had filled in the past. The Burmese monarch left one Aleinma as governor of Martaban. He was replaced for an act of insubordination, but shortly afterwards reappeared on the scene with some Shan followers, slew his successor, and resumed the government of the province, presumably as a vassal of Siam, which had long disputed this territory with the Talaings. In 1281 a native of Martaban arose, killed Aleinma, and was recognized as governor by the Siamese under the name of Wariyu. Wariyu joined the king of Pegu in driving out the king of Pagan, but shortly afterwards turned on his Talaing ally and annexed the kingdom of Pegu. In the reign of his successor the kingdom of Martaban extended from Tenasserim to Prome and Bassein, and during the endless Burmo-Siamese wars the capital was frequently besieged and captured. It came with the rest of the Talaing cities under Burmese dominion at the time of Alaungpayā, and was the point where that great warrior's forces assembled prior to the expedition against the Siamese which culminated in his death. It was easily occupied by the British in the first Burmese War in 1824, but was afterwards given up, what is now Thaton District, with the exception of that part of it lying east of the Salween, being returned to Burma. In the second Burmese War Martaban was occupied by a force under General Godwin in 1852, and held till the end of the war, when the whole District was taken over by the British. After forming for many years portions of the old Shwegyin and Amherst Districts, Thaton was eventually constituted a separate Deputy-Commissioner's charge in 1895, and since then its limits have not been altered. The annexation of Upper Burma was the signal in 1885-6 for a somewhat serious

rising in the west of the District, which was not suppressed till the assistance of the troops had been called in.

The highest point of the Kelatha range, known as the Kelatha peak, is crowned by a pagoda built at the end of the fifteenth century by king Dhamacheti (who is also credited with having set up the Kalyāni inscriptions at Pegu). Another eminence on a range farther to the east bears the Kyaiktiyo pagoda, one of the four most sacred shrines of Burmese Buddhism. This pagoda, which is about 15 feet high, is built on a huge rounded egg-shaped boulder, perched on the very summit, and overhanging the edge of a projecting and shelving tabular rock, which rises perpendicularly from the valley below. Pious Buddhists believe that it is retained in its position solely by the power of the relic, a hair of Gautama, enshrined within it. Other pagodas of archaeological interest are the Thagya pagoda at Thaton, the Kyaikkalunpun at Sittang, the remains of the 1,000 pagodas at Kyaikkatha, the Tizaung pagoda at Zokthok, and the Zingyaik on the hills of the same name north-west of Martaban. There are also caves containing innumerable images of Buddha of all sizes at Kawgun, Dhammatha, Bingyi, and Pagat. Besides Thaton, Taikkala, and Martaban, the District has in Sittang (near the mouth of the Sittang river) a town once prominent in the history of Burma. Like Martaban, Sittang was once a famous fort and the seat of government; but, as in the case of Martaban, little now remains to bear witness to its former importance.

Population.

The population of the District, as recorded at the last four enumerations, was as follows: (1872) 165,077, (1881) 229,941, (1891) 266,620, and (1901) 343,510. The principal statistics of area and population for 1901 are given in the following table, according to townships:—

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kyaikto	607	1	139	45,082	74	+ 55	12,086
Bilin	937	...	224	55,112	59	+ 13	10,761
Thaton	417	1	183	67,928	163	+ 80	11,977
Paung	353	...	142	55,071	156	+ 19	8,358
Pa-an	730	...	277	76,591	105	...	4,545
Hlaingbwe	2,035	...	208	43,726	21	+ 54	1,434
District total	5,079	2	1,173	343,510	68	+ 29	49,161

THATON, the District head-quarters, and KYAIKTO are the only two towns. The population has more than doubled in the past thirty years. This high rate of increase is largely due to immigration into the fertile rice-bearing areas along the Sittang and the Gulf of Martaban. The

only District supplying immigrants on a considerable scale is Amherst, though there has been a certain influx also from the Shan States and Siam. Indian immigrants number nearly 14,000, three-fifths of whom come from Madras and more than one-fifth from Bengal. There are altogether about 13,000 Hindus and 7,000 Musalmāns. Christians number nearly 2,100, but the great majority of the population are Buddhists. Burmese is the vernacular of about one-third of the people, Karen of about another third. Of Talaing speakers there are about 35,000, and of Taungthu speakers rather more than 32,000.

The most numerous race is the Karen, which numbered 124,800 in 1901, forming three-fourths of the population of that part of the District which lies east of the Salween, and about one-fourth of that of the rest of the District. Burmans number 73,400. They compose roughly two-thirds of the population of the Kyaikto subdivision in the north-west, and one-third of that of the Thaton subdivision in the south-west. East of the Salween they are few in number. The total of Talaings is 74,600; they inhabit the southern townships of Pa-an and Paung, south of Thaton town. An important tribe are the Taungthus, more largely represented than in any other District of Lower Burma. Their total in 1901 was 37,400. They form about a fifth of the population of the Paung and Pa-an townships in the south, and of the Thaton township in the centre of the District. They also inhabit the hills in the Bilin townships, spreading over into Toungoo and Salween Districts. The Siamese number nearly 10,000 and the Chinese about 3,000. In 1901 about 74 per cent. of the population were found to be engaged in, or dependent on, agriculture. About one-seventh of the agricultural population is supported by *taungya* or 'hill-slope' cultivation.

The number of native Christians is just over 2,000, mostly Karen Baptist converts. There is an American Baptist mission at Thaton.

Agriculture.

The agricultural conditions are determined chiefly by the heavy rainfall, and by the peculiarities of the numerous streams and rivers thus fed. The soil is generally fertile, especially in the alluvial plains, in the south and west between the hills and the sea, from which the bulk of the rice comes; and it may be said that cultivation is successfully practised wherever the water-supply is sufficient to develop, without overwhelming, the crop. The chief need in the low-lying sea-board areas is not irrigation but drainage. Many drainage schemes have been proposed, and some have been executed, chiefly by private enterprise. In the north-eastern portion of the District a series of small valleys or basins is found, in the bottom of which water remains more or less the whole year round. Rice is planted on the sloping sides of the basins and at different levels as the water falls. Irrigation is called into play here also, but generally on a small scale.

Cultivation is found on the banks of rivers at those points where the floods are usually not so severe as to prevent the development of a crop, and *taungya* cultivation is practised by Karen tribes in the hilly parts of the District. The main crop is rice. Beyond this there is little but garden cultivation. In addition to the ordinary *kaukkyi* (cold-season) and *mayin* (hot-season) rice, three special kinds are cultivated, known as *shansaw*, *tawla*, and *patā*. The last of these, like *mayin*, needs to be irrigated. *Tawla* rice, which depends on the later rains for success, is also irrigated sometimes, whereas *shansaw* is an early rice. The whole system of tillage adopted is one of following the water as it falls; and, if successful, the lower the ground the more generous the soil is likely to be, and the larger the out-turn that may be expected.

The following table gives the main agricultural statistics of the District for 1903-4, in square miles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Kyaikto	607	120	...	2,267
Bilin	937	123	...	
Thaton	417	207	2	
Paung	353	224	3	
Pa-an	730	188	7	
Hlaingbwe	2,035	81	...	
Total	5,079	943	12	2,267

Of the total area cultivated in 1903-4, rice occupied 871 square miles, garden cultivation 45 square miles (mostly in the Pa-an, Paung, and Thaton townships), and sugar-cane 4,600 acres (nearly all in the Bilin township). Garden cultivation is of various kinds. Plantains are plentiful; durians (900 acres) are largely grown near Thaton town and in the Paung township; and areca palms occupy 2,100 acres, mostly in the Bilin and Thaton townships.

The assessed area has increased by 38 per cent. since the formation of the District. Much of this increase is due to survey, but still there is no doubt that cultivation is extending with rapidity. In 1880-1 the total cultivated area was about 384 square miles; in 1890-1 it was about 539; and by 1900-1 it had risen to 872 square miles.

No demand exists for loans under the Land Improvement and Agriculturists' Loans Acts, which is attributed by the local officers to the prosperity of the people. In the past, however, free recourse was had in bad years to agricultural advances. In 1895-6 the loans aggregated Rs. 16,900, and in 1896-7 Rs. 9,250.

Cattle-breeding is extensively practised, though cattle are also freely imported from Siam, and buffaloes and goats are reared to a small extent. The District is famous for its trotting bullocks, but their

qualities appear to be due rather to training than to breed. The area set apart for grazing grounds is nearly 100 square miles, which is ample for the requirements.

There are no Government irrigation works. Irrigation is practised in the north-eastern areas, but generally on a small scale. The Thaton township possesses several drainage canals, of which the most important is that known as the Danukyaikkaw, connecting a small stream running close to Thaton (called the Sa *chaung*) with the Bilin river. In 1903-4 about 12 square miles were irrigated, the greater part lying in the Pa-an township.

The District contains 72 fisheries, of which the Shwelanbo fishery in the Kyaikto township is the most important. The revenue derived from them in 1903-4 amounted to Rs. 41,500. In his report on the operations of 1894-5, the Settlement officer wrote as follows :—

'In Thaton nearly every holding has its tank, used till the harvest is over for drinking purposes, and when the paddy has been either sold or carted home the tank is baled out and the fish taken.'

Forests, &c.

The forests fall within two divisions, namely, the Thaungyin and the West Salween, the Salween river being the dividing line. The most important clothe the Dawna range along the north-east boundary of the District: in fact, it may be said that those on the eastern slopes of this range include some of the most valuable teak forests in Burma, the greater part of which have been 'reserved.' Many other valuable species of trees are also found on the eastern hills, such as *padauk* (*Pterocarpus indicus*), *pyinma* (*Lagerstroemia Flos Reginae*), *kanyin* (*Dipterocarpus laevis*), *thingan* (*Hopea odorata*), and *kaunghmu* (*Parashorea stellata*); but the weight of their timber and the numerous rapids and other obstacles to navigation that exist in the Thaungyin and Salween rivers render their exploitation impossible. The forests on the west of the Dawna range are much drier and poorer in quality; but extraction is easy, and as a consequence most of the timber which has not been 'reserved' has been removed from them. The vegetation to the west of the Salween is of a more varied but less valuable character. Evergreen forests grow on the alluvial lands bordering the coast, but are of little importance from an economic point of view. Tropical evergreen and mixed forests occur farther inland, and are often found intermingled. These forests comprise about 200 species of trees, including teak, *pyinma*, *pyingado* (*Xylia dolabriformis*), and *thingan*. Many kinds of bamboo are also met with, which form the undergrowth for the loftier tree vegetation.

About 500 acres of a large teak plantation in the Thaungyin division lie in Thaton District. The other teak plantations cover only 177 acres. The forest receipts in 1903-4 amounted to 1¼ lakhs. The total area of 'reserved' forests is 118 square miles, and that of 'unclassed' forests

2,149 square miles. All the main streams are utilized for the floating of timber.

The only mineral of commercial importance in the District is limestone, which is obtainable from several hills in the Pa-an township and gives rise to a considerable industry of lime-burning, notably along the banks of the Donthami stream. The stone is extracted either by hammering or by the action of fire, and is burnt in brickwork kilns. It is then packed in gunny-bags holding from 100 to 150 lb. by coolies, who are hired at the rate of Rs. 3-8 per 100 bags. The actual process of lime-burning is generally carried on by Burmans. The outturn in 1903-4 was about 670 tons. Most of the lime produced is taken down the Donthami river to Moulmein, the rest being consumed locally. Pottery clay, laterite, and sandstone are also obtained in the District. Quite recently granite quarries have been discovered in the Kyaikto township, and it is proposed to develop them.

Trade and communications.

By far the greater part of the population is engaged in agriculture and cattle-breeding, and manufactures may be said to be almost non-existent. Salt is made in the sea-board townships, the methods used being the same as those described under AMHERST DISTRICT. In the littoral and riverain villages fishing and fish-curing afford occupation for a considerable section of the community, and the village of Hlaingbwe enjoys some celebrity for the mats which it produces.

The chief export is paddy. The produce of the Kyaikto subdivision finds its market in Rangoon during the wet season, and generally speaking in Moulmein during the dry; that from the rest of the District is sent down to Moulmein. The route from Kyaikto to Rangoon is by the Kyaikto-Sittang Canal, and thence via Pegu. The paddy for the Moulmein market is carried by the Bilin, Donthami, and Salween rivers. The Bilin-Martaban road and the tramway from Thaton to Duyinzeik also play an important part in the carriage of paddy. Teak timber and firewood are sent out of the District; but, with the exception of lime, Thaton has practically no other export of importance. A small but fairly steady trade is carried on with Siam. Some of it passes through Amherst District, but a fair proportion goes direct through Tedawsakan on the Siamese frontier. Three main trade routes converge at Tedawsakan, known as the Pa-an, the Kwanbi, and the Yinbaing routes. Registration is effected at Pa-an, Kwanbi, and Yinbaing, all either on or near the eastern bank of the Salween. In 1903-4 the total value of the imports and exports across the Siamese frontier was 8 lakhs and 6·8 lakhs respectively. The principal imports were nearly 3,000 head of cattle, valued at over 1½ lakhs, and silver (4 lakhs); while the chief exports were European

cotton piece-goods (1½ lakhs), silk piece-goods (¾ lakh), and silver (2½ lakhs).

A light railway or tramway, 8 miles long, built in 1883, runs along a metalled road from Thaton town to Duyinzeik on the west bank of the Donthami river, whence a steam-launch plies on week-days to Moulmein. A railway from Pegu to Martaban is now in process of construction. It will run to the west of the existing road between Kyaikto and Martaban, which is the main artery of the District. The principal roads are as follows: Martaban to Kyaikto (83 miles), passing through Thaton and Bilin; Thaton to Pa-an (24 miles); Pa-an to Naunglon (11 miles); Hlaingbwe to Shwegun on the Salween (14½ miles); Yinnyein to Kyettuywethaung on the Donthami river (15¼ miles); and Alu to Upper Natkyi (38 miles), continued northwards into Salween District. About 151 miles of road are maintained from Provincial revenues, and about 26 miles from the District cess fund.

A navigable canal, 13¾ miles long, connects Kyaikto with the Sittang river, and is served by a steam-launch which runs daily in connexion with a service to Shwegyin and Pegu. Launches ply from Moulmein as far as Duyinzeik on the Donthami river and to Kywegyan, two miles from Paung; and also to Shwegun on the Salween. Most of the other rivers are navigable by country boats for some part of their course. There are eighteen leased ferries.

Administration.

The District consists of three subdivisions, each of which is divided into two townships. The Pa-an subdivision consists of that part of the District which lies east of the Donthami river; and its townships, Pa-an and Hlaingbwe, lie respectively to the west and east. The remainder of the District is divided into the Kyaikto and Thaton subdivisions. The latter is the southernmost of the two, and includes Thaton and Paung. Of the two townships of the Kyaikto subdivision, Kyaikto is the western and Bilin the eastern. The subdivisions and townships are in charge of the usual executive officers, under whom again are about 428 village headmen. The only Forest officer is the subdivisional officer at Thaton, who works under the Deputy-Conservator in charge of the West Salween Forest division. The District is included in the Martaban Public Works division, with subdivisions at Thaton, Kyaikto, and Pa-an.

Thaton used to form, with Amherst, the charge of a District Judge, with head-quarters at Moulmein; but an Additional District Judge, who is also judge of the Thaton subdivisional court, has recently been posted to Thaton. At Hyaikto there is a subdivisional judge in addition to the subdivisional officer; at Pa-an the subdivisional officer is *ex-officio* judge of the subdivisional court; and the township officers of Hlaingbwe and Pa-an are similarly judges for their respective

township courts. There are now four whole-time civil township judges—one each at Kyaikto, Bilin, Thatong, and Paung. Sessions cases are tried by the Sessions Judge of Tenasserim. The District has a bad reputation for cattle-theft and dacoity. Gambling cases are also very numerous, especially in the Kyaikto subdivision.

The formation of Thaton District dates only from 1895, and it is impossible to give a complete account of the revenue history of the tracts composing it previous to that date. The tract now known as the Pa-an subdivision formed part of Amherst District from the annexation of Tenasserim in 1826 till 1895. The chief landmarks in its revenue history are the introduction of the acre system in 1842–3 by the Commissioner, Major Broadfoot (who thirty years later was still known as the 'Acre *Mingyi*'), Captain Phayre's settlement in 1848–9, Captain Horace Browne's settlement in 1867–8, and a summary enhancement which took place in 1879–80. The first two of these measures produced a considerable falling-off in revenue, and the last two a substantial increase. The Thaton and Kyaikto subdivisions were annexed in 1852, and at first formed part of Shwegyin District; but the former, then known as the Martaban subdivision, was transferred in 1866–7 to Amherst, of which it remained a part till the formation of Thaton District. Its revenue history up till that date, however, remains distinct, and may be separately traced. After annexation the land was reported fertile, and a rate of Rs. 2–8 per acre was imposed. In 1863 this rate was lowered by Colonel Phayre to Rs. 2; and when the subdivision was included in Amherst, various rates from Rs. 2 to 12 annas per acre were levied. Revenue was first collected in the Kyaikto subdivision in 1853–4 at the rate of Rs. 2 per acre. In 1859–60 the assessment was raised in part of the subdivision to Rs. 2–8, and reduced elsewhere to Rs. 1–8 and Rs. 1–4. In 1863–4 the rates were again lowered, and a further reduction took place in 1864–5. In 1871–2 further changes were effected, and in 1880–1 a summary enhancement was sanctioned. A holding survey of the Kyaikto subdivision was made in 1889, which resulted in an increase of revenue exceeding 45 per cent. In the year of the formation of the District as now constituted, the assessed area was returned at 685 square miles, with a net revenue demand of 7·6 lakhs, giving an average rate of Rs. 1–11–8 per acre. Settlement operations in the tracts now composing the District were completed in 1896–7. In 1898–9, the year after the revised rates had fully come into force, the area of assessed land in the District was reported as 847 square miles, and the net revenue demand as 11 lakhs, which gave an average rate of Rs. 2–0–3 per acre. The increase in area was due partly to extension of cultivation, and partly to the supplementary survey introduced during those years. About half the

increase of revenue may be set down to the enhanced rate introduced after settlement. The rates on rice land vary at present from 8 annas to Rs. 2–12 per acre, except in the Kyaikto subdivision, where they rise to Rs. 3–8 per acre; and on garden land from R. 1 to Rs. 5 per acre. Miscellaneous cultivation is taxed at rates ranging from Rs. 1–8 to Rs. 3, *dani*-palm plantations are assessed at Rs. 3 per acre, and sugar-cane at from Rs. 1–8 to Rs. 4, except Madras sugar-cane, on which the higher rate of Rs. 5 is levied. The average area of a holding of rice land is 15¾ acres, that of garden land 1¾ acres.

Land revenue brought in nearly 11 lakhs in 1900–1, and 11·4 lakhs in 1903–4. The total revenue from all sources increased from 16·8 lakhs in 1900–1 to 18·5 lakhs in 1903–4.

The income of the District cess fund for the maintenance of roads and various local needs amounted to 1·5 lakhs in 1903–4, of which Rs. 61,000 was spent on public works. There are two municipalities, THATON and KYAIKTO.

The District is divided into three police subdivisions, corresponding with the civil subdivisions. The Superintendent of police has under him an Assistant-Superintendent, 4 inspectors, and 10 head constables; and the civil police force consists of 38 sergeants and 273 constables, distributed in 13 police stations and 4 outposts. A force of military police, 170 strong, belonging to the Toungoo battalion, is stationed at the various township head-quarters. The District possesses no jail. Prisoners sentenced to long terms of imprisonment are sent to Moulmein to serve out their sentences.

Thaton District is still backward as regards education, a fact which may be attributed to the preponderance of the Talaing, Karen, and Taungthu elements in its population. In 1901 the percentage of literate persons for each sex was 23·5 in the case of males and 4·1 in that of females, or 14·3 for both sexes together. The proportion of male literates is lower than in any District of Burma proper, except Bhamo, Northern Arakan, and Salween. The total number of pupils has increased from 11,337 in 1900–1 to 14,225 in 1903–4, (including 2,005 girls). In the last year there were 3 special, 11 secondary, 211 primary, and 329 elementary (private) schools. Neither of the two municipal towns contains schools worthy of special mention. That educational progress is being made, however, is shown by the fact that since 1896–7 the number of public schools has more than trebled, while the number of pupils has more than doubled. Special schools are maintained for Karens and Talaings under deputy-inspectors belonging to these races. The total expenditure on education in 1903–4 amounted to Rs. 23,900, of which Rs. 1,900 was provided from municipal funds, Rs. 17,700 from the District cess fund, Rs. 2,150 from Provincial funds, and Rs. 2,150 from fees.

There are three hospitals, with accommodation for 39 in-patients. In 1903-4 the number of cases treated was 23,041, of whom 509 were in-patients, and 455 operations were performed. The total income amounted to Rs. 31,600, towards which municipal funds contributed Rs. 26,700, and Local funds Rs. 4,100.

Vaccination is compulsory only in the municipal towns of Thaton and Kyaikto. In 1903-4 the number of persons successfully vaccinated was 3,129, representing 10 per 1,000 of population.

[E. Forchhammer, *Notes on the Early History and Geography of British Burma* (1883); Taw Sein Ko, *Notes on an Archaeological Tour through Ramannadesa* (1893); A. Gaitskell, *Settlement Reports* (1896 and 1897); Captain H. Des Voeux, *Settlement Report* (1868).]

Thaton Subdivision.—Subdivision of Thaton District, Lower Burma, consisting of the THATON and PAUNG townships.

Thaton Township.—Township in Thaton District, Lower Burma, lying between 16° 47′ and 17° 13′ N. and 97° 8′ and 97° 30′ E., with an area of 417 square miles. It is bounded on the west by the Gulf of Martaban. The population was 37,713 in 1891, and 67,928 in 1901, showing an increase of no less than 80 per cent. The township contains one town, THATON (population, 14,342), the head-quarters; and 183 villages. It is hilly in the east, but in the west a flat alluvial plain stretches away to the Gulf of Martaban. The area cultivated in 1903-4 was 207 square miles, paying Rs. 3,00,600 land revenue.

Thaton Town.—Head-quarters of the District of the same name in Lower Burma, situated in 16° 55′ N. and 97° 22′ E. Its name Thaton is believed to be a corruption of Saddhama (*sat-dharma*, i.e. 'good law'), and may be connected with the legendary fame of the city as a repository of the Buddhist scriptures. The town is picturesquely situated at the very foot of the forest-clad slopes of the Martaban hills, wedged in between a hill ridge and a stretch of level alluvial land, about 10 miles in width, which separates it from the Gulf of Martaban. Flat and well wooded, shut in on the east, but open to the cold-season breeze from the north and the south-west monsoon, which blows across the rice flats from the sea, Thaton enjoys a climate which is on the whole pleasant and salubrious. The rainfall is heavy, but the town is well drained; and the heat, which rarely rises above 95°, is generally tempered by cool air currents.

Thaton was in ancient times a flourishing port and the capital of an independent kingdom, known in Pāli literature as Ramannadesa. This was the country of the Mons, who, since their final conquest by the Burman king Alaungpayā in the middle of the eighteenth century, have come to be known as Talaings. Tradition likewise points to Thaton as the centre and mother city of the Taungthus, who still form a considerable element in the population, as they do also in the Shan State

of Thaton or Hsahtung farther north; but as regards the part played by this people in the past in Thaton the legends cannot be accepted without reserve. Trustworthy dates concerning the history of Thaton are, in fact, extremely few, and the town's early history may be briefly disposed of.

It appears from Buddhist writings preserved in Ceylon and elsewhere (particularly the Mahāvanso) that at the third great synod held at Pātaliputra (the modern PATNA), it was determined to send missionaries to all lands to preach the doctrines of Buddhism; and accordingly two missionaries, Sona and Uttara, were dispatched to Suvanna Bhūmi, which is identified with the country of which Thaton was the capital. About the middle of the fifth century A.D., a copy of the Buddhist scriptures was brought over to Suvanna Bhūmi from Ceylon by Buddhaghosha, a learned native of Bihār. Both these traditions have, however, been doubted [1], and there is reason for discrediting the belief of the Burmans, that the earliest form of Buddhism in Burma was of the Southern School. In the eleventh century, in the reign of king Manuha, the town was sacked after a famous siege by Anawrata, the Burman king of Pagan, who took away with him many elephant-loads of relics and manuscripts, as well as the most learned of the priesthood. So thorough was the work of destruction that Thaton henceforward figures hardly at all in either legend or history. It is true that Sir Arthur Phayre identified Thaton with the port called Xeythoma which was visited by Nicolò de' Conti about 1430, but the identification appears to be exceedingly uncertain. It seems more probable that at that date Thaton had long since ceased to be upon the seacoast, and the port in question is more likely to have been Sittang.

The date at which the sea began to withdraw from Thaton is not exactly known, but is probably indicated by the foundation of Pegu and Martaban, the cities which took its place, the one as a capital and the other as a seaport. These towns are said to have been founded by emigrants from Thaton in A.D. 573 and 575, respectively; and it seems safe to infer that Thaton was already in its decadence when Anawrata finally accomplished its ruin. Though in the past Thaton itself has usually been identified as the landing-place of Sona and Uttara, and later of Buddhaghosha, it should be mentioned that Dr. Forchhammer has shown weighty reasons for placing the scene of these events, if they actually occurred, at TAIKKALA or Kalataik, at the foot of the Kelatha hills.

Little remains at the present day to attest the ancient magnificence of Thaton, except the ruins of the city walls. The chief remains of pagodas are situated between the site of the citadel and the south wall. At present the largest is a modern one, of the usual form, built

[1] See V. A. Smith, *Indian Antiquary*, 1905, p. 180.

over an old one and called the Shwesayan. Near it are three square ones. The principal of these, known as the Thagya or Muleik pagoda, lies on the eastern side of the great pagoda, and still exhibits signs of having once been a beautiful and elaborate structure. It is built entirely (as are almost all pagodas in that part of the country which was inhabited by the Talaings) of hewn laterite. The whole face of the pagoda has been carved in patterns, but the most remarkable part is the second storey; into the face of this are let red clay entablatures, on which various figures are depicted in relief. Few now remain, and they are much mutilated and covered with whitewash; the scenes and costumes depicted, however, are very curious.

The population of Thaton, which had dwindled in 1853 to a village of thirty or forty houses, was 14,342 in 1901, and is increasing steadily. A large proportion of the non-Burman inhabitants are Taungthus. There are a few Karens and a good many natives of India. The increase in population during the past twenty years is due, in large measure, to the communication established in 1883 with the outer world by the 8 miles of light railway which connect the town with Duyinzeik on the Donthami river, whence a steam-launch (run by the Irrawaddy Flotilla Company) plies daily to Moulmein. The town is also connected by a metalled road with Kyaikto on the north-west and Martaban on the south-east. Thaton possesses a flourishing market, a District courthouse, civil and military police lines, and a municipal hospital. It has been administered since 1887 by a municipal committee, composed of five *ex-officio* and ten nominated members. The income and expenditure of the municipal fund during the ten years ending 1901 averaged Rs. 25,500 and Rs. 23,500 respectively. In 1903-4 the income was Rs. 38,000, the principal sources being house tax (Rs. 4,700) and market dues (Rs. 18,000). The expenditure was Rs. 57,000, the most important items being administration (Rs. 6,800), roads (Rs. 4,500), and hospital (Rs. 25,000).

Thaungdut.—Shan State in the Upper Chindwin District of Burma. *See* HSAWNGHSUP.

Thayetchaung.—Coast township in the south of Tavoy District, Lower Burma, lying between 13° 16′ and 14° 2′ N. and 98° 13′ and 98° 44′ E., with an area of 791 square miles. The population was 30,673 in 1891, and 30,424 in 1901. In the latter year it was known as the South-eastern township, and contained 91 villages, one of the largest of which was Thayetchaung (population, 1,108), the head-quarters, which lies close to the left bank of the Tavoy river, about 15 miles nearer the sea than Tavoy town. Except near the sea, the township is very hilly. The population is for the most part Burman, but there is a fair proportion of Karens. The area cultivated in 1903-4 was 59 square miles, paying Rs. 78,000 land revenue.

Thayetmyo District.—District of the Minbu Division, Burma, lying between 18° 52′ and 19° 59′ N. and 94° 24′ and 95° 52′ E., with an area of 4,750 square miles. It is bounded on the north by Minbu and Magwe Districts; on the south by Prome; on the east by Yamethin and Toungoo; and on the west by Sandoway. Its natural boundaries are the main ridges of the two great ranges, the Arakan Yoma on the west and the Pegu Yoma on the east. From these main ranges the hills trend east and west to form the Irrawaddy watershed.

Physical aspects.

The Irrawaddy flows down the centre of the District from north to south, and with its tributaries drains the whole. Of its affluents on the west the most important are the Pani, the Maton, and the Made. The Maton rises in the Arakan Yoma in the latitude of Minbu, and runs for about 35 miles in a southerly direction, to the point where it is joined by the Mu, then turning south-east to join the Irrawaddy, a short distance above Kama, in the south of the District, after a farther course of about 65 miles. The Pani, which rises in the extreme north-west corner of the District, flows into the Maton 10 miles from its mouth. The country between the Pani and the Irrawaddy is cut up by unimportant watercourses, which are liable to sudden floods during the rains, but at other times are practically dry. South of the Maton is the Made, which runs for about 40 miles from the Yoma to join the Irrawaddy at Kama, but is insignificant in the dry season. On the eastern slopes of the Irrawaddy valley the principal tributaries are the Kyini and the Butle. The former rises in the hills which separate the Sinbaungwe from the Allanmyo township, and, joined by numerous affluents, empties itself into the Irrawaddy at Allanmyo, after a course of about 50 miles. South of it is the Butle, nearly 60 miles in length, rising in the Pegu Yoma at the south-east corner of the District, and flowing due west to join the Irrawaddy 10 miles below Thayetmyo. It is swelled from the south by several streams which drain the whole of the south-eastern portion of the District. The Arakan Yoma averages about 4,000 feet in height, twice exceeding 5,000 feet. The Pegu Yoma on the east is much less lofty, rising but once above 2,000 feet, and tailing off towards the north. The hills that divide the narrow river valleys on either side of the Irrawaddy rarely attain any considerable altitude.

The western portion of the District is occupied by a series of shales and limestones (either Upper Cretaceous or Tertiary), known as Chin shales. To the east of these come shales and limestones containing Nummulitics, and farther east still are marine sandstones, among which petroleum occurs in small quantities, and clays of miocene age. East of the Irrawaddy the ground is covered by alluvium and sandstone containing fossil wood.

The flora of Thayetmyo is for the most part characteristic of the dry zone. Teak is plentiful, and cutch is not uncommon. Large tracts are covered with dry scrub jungle, and the cactus is very plentiful.

Barking-deer and wild hog are common throughout the District. The brow-antlered deer (*thamin*) is found in the plains; and in the thicker forests near the Yoma, bison, buffaloes, tigers, elephants, bears, and rhinoceros abound. Peafowl are scarce, but silver pheasants are found in considerable numbers in the hills.

The climate has the drier characteristics of Upper Burma, and shows more marked variations than the neighbouring delta. The temperature falls as low as 42° in the nights of the cold season, and sometimes rises above 105° at noon in the hot season; but the range in the hottest and coldest months is roughly from 77° to 103°, and from 55° to 85° respectively. The District is accounted fairly healthy, though statistics show that cholera breaks out occasionally in places when the river recedes far from the villages, and the inhabitants are too lazy to get a better supply of water than is afforded by stagnant pools and contaminated streams. Fever is prevalent in the upper valleys of the tributaries that pour down from the Arakan Yoma.

The rainfall is scanty and capricious, and crops are frequently destroyed by untimely drought. The records at the head-quarters of the townships for the last ten years give averages varying from 31 inches at Minhla and Sinbaungwe (bordering on the dry zone) to 49 inches at Mindon, near the foot of the Yoma, and closer to the wetter areas of the delta.

History.

Little is known of the early history of the District, which is rarely mentioned in Burmese annals. After the conversion of the people to Buddhism, its southern tracts appear to have belonged to the kingdom of Tharekhettra (Prome), the northern portion being administered from the modern Salin or Pagan. The town of Mindon, at the foot of the Arakan Yoma, was founded by a fugitive king of Prome, on the destruction of his capital by the Talaings (about the middle of the eighth century A.D.). The same monarch again rose to power at Pagan, and a considerable portion of the District was for more than 500 years included in the kingdom which he founded. The governors of Thayetmyo were appointed from Pagan during this period; but the fall of the Pagan dynasty was followed by a long period of internal revolts, and the hold over Thayetmyo was in all probability of the lightest. The District was found parcelled out among various governors when it was annexed with the rest of Pegu in 1852, and was then formed into a subdivision of Prome District. In 1870 it was made into a separate Deputy-Commissioner's charge, and its boundaries were extended by the Upper Burma subdivision of Minhla after the annexation in 1886.

The head-quarters of this portion of the District are at Minhla, where the remains of the old Burmese fort, now used as a bazar, mark the point at which the first resistance was offered by the Burmans to the advance of the British in 1885. The fort was taken by storm, and the position on the opposite side of the river was destroyed by dynamite. The sites of the old British frontier forts are still traceable. The disturbances that followed on the annexation of Upper Burma were not without their effects in Thayetmyo, and for several years after 1886 the District was harried by gangs of dacoits. Nga Swe, the most notorious disturber of the peace in this region, was killed, however, in 1888, and after that the country gradually quieted down.

The most noted pagodas are the Shweandaw, a few miles north of Thayetmyo town (founded in 1167); the Shwemyindin or Shwesutaungbyi, in the Kama township (said to have been erected in A.D. 100); and the Shwethetlut, in the town of Thayetmyo (built in 1373). The last named is remarkable as being hollow. Its name means 'the saving of the golden life,' and it was erected by a king of Ava as a thank-offering for the preservation of his life when taken prisoner by the king of Arakan in Thayetmyo. The alternative name of the Shwemyindin pagoda, Shwesutaungbyi (meaning 'prayers fulfilled'), bears testimony to its reputed efficacy in responding to petitions.

Population.

The population, excluding the Minhla subdivision (annexed in 1886), was 156,816 in 1872, 169,560 in 1881, 194,637 in 1891, and 174,646 in 1901. That of the District, including Minhla, decreased from 250,161 in 1891 to 239,706 in 1901. Its distribution in 1901 is given in the table below:—

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Thayetmyo	192	1	106	37,599	196	− 10	12,464
Mindon	708	...	251	30,350	43	− 13	7,237
Kama	575	...	201	39,570	69	− 4	10,553
Minhla	490	...	290	42,120	86	+ 26	10,060
Sinbaungwe	1,873	...	105	23,395	12	+ 6	6,521
Allanmyo	912	1	322	66,672	73	− 13	15,707
District total	4,750	2	1,275	239,706	50	− 4	62,542

The decline in population since 1891 is due for the most part to emigration into the delta country, and is not likely to continue long. Nearly 9,000 persons born in the District have migrated of late years to Ma-ubin and Pyapon, more than 6,000 to Prome, and about 4,500 to Tharrawaddy. There are two towns (THAYETMYO, the head-quarters, and ALLANMYO) with more than 10,000 inhabitants, but the

number of large villages is inconsiderable. The great majority of the inhabitants are Buddhists, though Animists (for the most part Chins) exceeded 15,000 at the last Census. Hindus and Musalmāns totalled a little below 2,500 each; and there were 881 Christians, of whom the British troops stationed at Thayetmyo furnished a considerable proportion. Emigration among the able-bodied men has caused Thayetmyo to figure among the few Lower Burma Districts in which the females outnumber the males. The proportion in 1901 was 1,015 of the former to 1,000 of the latter. Burmese is spoken by 89 per cent. of the population. The only other language used to any extent is Chin, which had over 20,000 speakers in 1901.

With the exception of 19,700 Chins, nearly the whole of the indigenous population of the District are Burmans. The majority of the Chins (about 12,000) inhabit the Arakan Yoma, and are closely allied to the Chins of Kyaukpyu and Sandoway. There is, however, also a small settlement, about 8,000 strong, to the east of the Irrawaddy in the Pegu Yoma. In all 172,300 persons, or 72 per cent. of the total population, were in 1901 classed as agricultural, and more than a quarter of this total were dependent on *taungya* or 'hill-slope' cultivation alone.

The only Christian mission that works regularly in the District is the American Baptist Union, which has a school at Thayetmyo and labours among the Chins. The Society for the Propagation of the Gospel had a school in the District in 1901, but did no outside mission work. Native Christians numbered 448 in 1901.

Agriculture.

Rice cultivation is confined to the shallow valleys between the low hills, which radiate through the District and form its most striking physical feature; and it is only along the Maton stream and in one or two spots in the Allanmyo township that the conformation of the country is at all suited to the growing of rice on an extended scale. At the same time the valleys secure the benefit of the drainage from the hill slopes, and, given a good rainfall, are not infertile. The monsoon is, however, so capricious, and the opportunities for irrigation from perennial streams so small, that the rice crop is seldom considerable. The hill-sides are moreover themselves cultivated for 'dry crops,' and much of the fertilizing matter which in richer country is carried into the paddy-fields is thus withheld. The system of cultivation prevalent does not present any marked peculiarities, but it may be noted that the area of the average holding (4 acres) is very small compared with the mean in other Districts. The paddy-fields have to be ploughed at the very first opportunity, and the crop planted as early as possible, to minimize the risk of failure due to the absence of rain late in the season; and for the same reason only the rapidly maturing kinds of rice are grown.

For ploughing, bullocks are used; but the shallowness of the soil is against the use of the *te* (or iron plough), and the fields are usually prepared with the *tun* (or harrow), and sometimes smoothed over with the *kyandon* (or clod-crusher). A special feature is the practice of making the nurseries in waste land, apart from the holding, where the plants have the advantage of a virgin soil and the cultivator that of a larger planting area. When the ordinary wet-season crops fail, *mayin* or hot-season rice is grown here and there (especially on the Maton stream), the water being raised from the rivers by means of ingenious undershot wheels such as may be seen on the Chindwin and the Taping. *Taungya* rice is extensively cultivated on the hill-sides. In the Mindon valley on the Maton the ground is very suitable for mixed cultivation, and great pains are taken in the production of onions. Both the large-leaved and pointed-leaved kinds of tobacco are grown, the former producing a heavier crop, the latter a finer tobacco. The plants are set out about 2 feet apart in ground well prepared with the *tun* and *kyandon*.

The main agricultural statistics of the District for 1903-4 are given below, in square miles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Thayetmyo	192	25	1	3,341
Mindon	708	35	2	
Kama	575	50	6	
Minhla	490	41	3	
Sinbaungwe	1,873	36	...	
Allanmyo	912	85	11	
Total	4,750	272	23	3,341

Despite the meagre rainfall, the most important crop is rice, which occupied 138 square miles out of the 272 square miles cropped in 1903-4[1]. Other food-grains are millet, maize, and gram. In parts of the District millet (*pyaung*) largely takes the place of rice in a dry year, and in Minhla is almost as common as rice. In 1903-4 about 8,700 acres of maize were cropped. Sesamum is the principal oilseed. It is grown very extensively throughout the District, covering 47,000 acres in 1901, and is popular, inasmuch as it does not require a great deal of rain, and commands a high price. Cotton (12,500 acres) is also largely grown on the hill-sides, and finds a ready market in the Ywataung ginning mills. The coarse soap, which is manufactured from the cotton seed, is slowly finding a market, and the use of cotton-seed oil in place of sesamum oil is extending. Tobacco (5,900 acres) is increasingly cultivated in the alluvial land along the Irrawaddy and

[1] Excluding *taungya* areas.

Maton rivers, the other main *kaing* or river-bed crops being onions and chillies. Experiments have been made with Havana tobacco, but have not met with as much success as in the richer silt of the delta. The area under gardens is 4,700 acres, the greater part consisting of plantain groves.

Cultivation extends but slowly in Thayetmyo, for there is little waste land suitable for rice, and the poor soil of the uplands requires long periods of rest. A slight expansion of the rice area may be expected when the resources of the District in the matter of irrigation are fully developed; but, apart from that, it may be said that the agricultural population and out-turn have almost reached their limits.

While fully recognizing the difference between 6 per cent. and 60 per cent. interest, the Thayetmyo husbandman dislikes the inexorable punctuality with which he has to pay the instalments of advances taken from Government, and still prefers as a rule to patronize the local usurer. It is satisfactory to note, however, that in a really bad year the cultivators who have lost or sold their cattle apply freely for loans from Government. The amounts advanced under the Agriculturists' Loans Act during the two years ending 1901 were Rs. 4,270 and Rs. 3,950 respectively, and the average has risen since then to Rs. 7,000.

Cattle-breeding is carried on throughout the District, but on a large scale only in the northern portion. There are no peculiar varieties of breed. Pony-breeding is practised to a small extent, but it is seldom that an animal of any real value is produced. Sheep are not bred outside Thayetmyo town, and goats are reared only by natives of India. The grazing grounds are unlimited in extent, but not very suitable in character; and in many parts cattle suffer severely from want of good fodder in a dry season, for, although several fodder crops are grown, the people cannot afford to devote much land to them.

There are not many perennial streams, and only a few small tanks dependent on the rainfall. Wells are very little used, except for the more valuable *kaing* crops. Several irrigation schemes are under discussion, but the area which can be served by any one system, in such broken country, is comparatively small. Irrigation by means of a water-wheel is practised in some of the riverain villages. About half the irrigated area is in the Myede subdivision (watered by the Butle), and another quarter in the Kama township (watered by the Made, Pani, and Maton). In 1903-4 the area irrigated was about 23 square miles, all rice land. Of this total, 20 square miles were irrigated from private canals, the remainder from tanks and wells. The fisheries of the District are small and unimportant. They brought in a revenue of a little more than Rs. 5,000 in 1903-4.

Forests, &c.

The forest growth is, as determined by the climate, of the 'dry' *indaing* type in the north and near the river, improving in quality and density southwards and away from the river up to the Yoma on either side. On the east the Pegu Yoma and its foothills are covered with excellent teak forest, the value of which is, however, diminished by the poor floating qualities of the streams. On the west the Yoma is much higher, and the vegetation passes into the evergreen type, with climbing bamboo and towards the north the india-rubber fig (*Ficus elastica*). The greater part of the District is, however, of low elevation, and has been heavily worked for *taungya* ('hill-slope') cultivation for so long that large trees are scarce, especially where the trade in timber has assisted in the work of destruction. The species found are therefore quick-growing soft woods, and large areas are covered by the *myin* bamboo, in which there is a large trade. Cutch is everywhere abundant, but reduced to scrub or trees not older than the *taungya* rotation. Reserves in this lower ground cover 196 square miles. Along the Yomas there are also 445 square miles of teak Reserves: in all, a total of 641 square miles. The area of 'unclassed' forests is estimated at 2,700 square miles, which gives a total forest area for the whole District of 3,341 square miles. Besides teak and cutch (*Acacia Catechu*), *pyingado* (*Xylia dolabriformis*), *in* (*Dipterocarpus tuberculatus*), *padauk* (*Pterocarpus indicus*), and other valuable timber trees are found in fair quantities. The net forest revenue in 1903-4 was about 2·6 lakhs.

The only known mineral products are petroleum oil, clay, laterite, limestone, and steatite. Coal is said to have been extracted many years ago a few miles south of Thayetmyo town at Tondaung, now, as its name implies, a centre of the lime industry. The lime is burned in kilns on the bank of the Irrawaddy, and finds a ready local market at from Rs. 10 to Rs. 15 per 100 baskets. The annual production is nearly 4,000 tons. Oil is known to exist at Padaukpin, 8 miles west of Thayetmyo town, but there is nothing to show that the oil-field is a rich one. The laterite of the District is not of a good quality. Steatite is found in the Arakan Yoma, but has not been extracted to any considerable extent. The local production of salt is forbidden, though saline earth suitable for the industry occurs in places. Near Thayetmyo, and elsewhere in the District, pottery clay is found, which is used for the manufacture of rough pots for domestic use or the local market. The *natmi*, or spirit fire, near Kama has attained a certain local celebrity. Gas of unknown origin filters here through cracks in the earth, and is said to ignite of itself. In places small mud pagodas have been erected by the pious at the site of this phenomenon.

Cotton-weaving is carried on here and there throughout the District,

but silk-weaving is confined to one small village in the Thayetmyo township. Wood-carving is pursued on a small scale, and has not attained any celebrity; on the other hand, the silversmiths of Thayetmyo town produce beautiful work, equal to the best that Rangoon can show. They display taste in conception and great skill in execution, and their reputation is well deserved. The rough pottery of the District has no outside sale, but the manufacture of coarse mats woven from split bamboos forms a source of livelihood for a considerable section (over 2,500) of the population. These mats are made in two sizes and are exported in large quantities to Lower Burma. The establishment of a steam cotton-ginning mill at Ywataung in 1896 has practically extinguished the old hand-gin industry. There were said to be 4,000 of the old-fashioned machines in 1881, but these have now mostly disappeared. The Ywataung factory is managed with some enterprise. The cleaned cotton is baled by hydraulic pressure and sent to the Rangoon market; the seed is then crushed and the oil extracted. A coarse soap is produced from the seed, but has not yet found a ready market. During the cotton harvest the mill runs day and night, and the hands in the busy season number hundreds. The price of raw cotton at the mill gates is about Rs. 20 per 100 viss. In the slack cotton season the power is applied to saw-mills. Saw-pits unaided by steam have not been altogether ousted, and several are profitably worked at Thayetmyo and Allanmyo, the sawn timber being sold locally.

Trade and communications.

The principal imports and exports enter and leave the District by the steamers of the Irrawaddy Flotilla Company. Of the former the most important are paddy, rice, fish, *ngapi*, oil, and piece-goods. The chief exports are mats (bamboo), cotton, sesamum oil, tobacco, onions, lime, and cattle. Thayetmyo, Allanmyo, and one or two of the southern river villages are the main trade centres, from which the goods are distributed by cart, and in the rains by the Maton stream. Cattle are brought in during the dry season from Taungdwingyi overland, and are taken for sale between Allanmyo and Prome by the Government road. The cotton goes to Rangoon, the trade in it being practically in the hands of a single Indian firm, and natives of India have secured a liberal share of the petty business of the two main bazars of the District.

There are no railways, but the steamers of the Irrawaddy Flotilla Company connect with the railway termini at Prome, Myingyan, Sagaing, and Mandalay. The ferry steamers between Thayetmyo and Minbu in the north, and Prome in the south, touch at the principal riparian villages, and there is a small steam-ferry service between Thayetmyo and Allanmyo on the east bank. Of the tributaries of the Irrawaddy, the Maton is the only stream which has any con-

siderable boat traffic. During the rains boats go beyond Mindon, which during the dry season obtains its supplies by the Public Works road running westwards from Thayetmyo and metalled for half its length of 45 miles. The other main roads are those from Ywataung to Tindaw ($38\frac{1}{2}$ miles), on the way to Toungoo, with a branch from Kyaukpadaung to Thanbulla (10 miles). Thirty miles of the Prome-Myede road lie within the District. In addition to these, 165 miles of track are maintained, following the line of what were first designed as military roads in the interior. All the roads are kept up from Provincial funds.

There is no record of any famine in the District. In 1896–7 there was a bad season in the Minhla subdivision, but the people refused to accept work offered to them at famine-work rates. Cattle-breeding in this portion of the District is carried on extensively, and it is probable that the people could tide over one year in any circumstances short of complete failure of both the main crops. The labour market in the delta is open to all, and the high wages (paid generally in kind) attract many agriculturists from the southern half of the District even in a good year, while in a bad year nearly all the men move southwards.

Administration.

The District is divided into three subdivisions—Thayetmyo, Minhla, and Myede—each in charge of a subdivisional officer; and six townships—THAYETMYO, MINDON, KAMA, MINHLA, SINBAUNGWE, and ALLANMYO—of which the first three belong to the Thayetmyo, the fourth and the fifth to the Minhla, and the sixth to the Myede subdivision. Thayetmyo forms (with Minbu and Magwe Districts) a Public Works division with two subdivisional officers in the District, and is the head-quarters of the Thayetmyo Forest division. The number of village headmen at the commencement of 1904 was 705, but a few circle *thugyis* are left in the District.

Thayetmyo is in the jurisdiction of the Divisional and Sessions Judge, Bassein Division. The Deputy-Commissioner is District Judge. There are no whole-time township judges, as in the adjoining Districts of Lower Burma; and no additional township judges except in the township court, Thayetmyo, where the treasury officer sits as additional judge, and exercises Small Cause Court powers in the town. The subdivisional officer, Myede, has Small Cause Court jurisdiction in Allanmyo. Habitual cattle-thieves form a large portion of the population on the east of the river. Murders are very rife, especially during the hot season. Dacoity and robbery are not common, but gambling in the southern part of the District is almost universal, and is the subject of frequent prosecutions. Civil litigation is mainly concerned with petty money or land suits.

Before the annexation of Pegu there was no real system of land

revenue calculated on the area of cultivation, and it is not known how much of the revenue transmitted to the capital (which amounted in the year before annexation to just over a lakh of rupees) consisted of land tax. Immediately after the acquisition of the southern portion of the existing District an acre assessment was introduced; but the scheme did not work satisfactorily and, pending a proper survey, a settlement was offered to the people, under which each man was required to pay for a period of five years the same sum as he had paid in the year previous to settlement, an arrangement which was eagerly accepted. Before 1872 there were two such quinquennial settlements of revenue. The rates at this time for rice land were 4, 6, 8, and 12 annas and R. 1 per acre, with a fallow rate of 2 annas; and it was not till 1891, long after the Districts farther south had been surveyed and settled, that survey operations were started. The survey was completed in 1892, and comprised most of the rice-producing tracts in the Lower Burma portion of the District. In 1900 and 1901 this area was settled. Before this settlement the maximum and minimum rates per acre had been, for rice, 8 annas to Rs. 1-8, and for crops of other kinds from 12 annas to Rs. 1-8, while solitary fruit trees were taxed at from 3 to 4 annas each. The rates introduced in 1902 were—on rice lands, 8 annas to Rs. 2-8 per acre; on *ya* or uplands, R. 1 to Rs. 2; on *kaing* crops, Rs. 2 to Rs. 4; on tobacco, Rs. 2-8; on gardens, Rs. 1-8 to Rs. 3; and on solitary fruit trees, 4 annas each. The highest rice rates are levied in the lower valley of the Maton, the lowest in the distant *kwins* in the upper valley of the Maton and its tributary the Mu. In the unsettled portions the revenue rolls are prepared each year by the headmen, their measurements being checked to a certain extent by the supplementary survey staff.

The following table shows, in thousands of rupees, the growth of the revenue since 1880-1:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	1,10	1,06	1,39	2,36
Total revenue . .	4,65	4,87	5,02	6,01

Up to 1901-2 both capitation tax and *thathameda* were levied in Thayetmyo, the former in the Lower Burma, the latter in the Upper Burma, portion of the District. In 1902-3 capitation tax was levied over the whole District, and the demand was Rs. 2,20,000.

The District cess fund, administered by the Deputy-Commissioner for the upkeep of local institutions, had an income of Rs. 35,400 in 1903-4, the chief item of expenditure being education (Rs. 6,800). THAYETMYO TOWN and ALLANMYO with Ywataung are the only municipalities.

Thayetmyo is ordinarily garrisoned by the head-quarters and five companies of a British infantry regiment and a regiment of Native infantry. The old fort at Thayetmyo, which is on the river bank at the north of the cantonment, is now a military prison. There are small detachments of the Upper Burma Volunteer Rifles at Thayetmyo and Allanmyo.

The civil police force consists of a District and an Assistant Superintendent, 4 inspectors, 75 head constables and sergeants, and 475 constables. There are 15 police stations in the District, and 23 outposts. Bodies of military police are stationed at Thayetmyo town, and at the head-quarters of each township, and during the open season assist in the patrolling of the rural areas.

The Central jail at Thayetmyo town has accommodation for 1,197 prisoners, though the average population in 1903 was only 661. Since the use of river water, which is pumped up from the river by the prisoners, the jail has been remarkably healthy. The industries carried on within its walls are carpentry, blacksmith's and tinsmith's work, bamboo- and cane-work, paddy-husking, oil-pressing, cotton-cleaning, skin-tanning and curing, coir-pounding, mat and rope-making, and stone-breaking.

In the matter of education Thayetmyo ranks fairly high among the Districts of Burma. In 1901 the proportion of those able to read and write was 48·7 per cent. in the case of males and 3·8 per cent. in the case of females, or 26·1 per cent. for both sexes together. Primary education, as elsewhere in Burma, is mainly provided by the monastic schools which are to be found in most villages. A large number of these have submitted to the guidance of the Educational department with great advantage. The number of pupils has been rising steadily. In 1891 it was 6,737, and in 1901 it was 6,896. In 1903–4 there were 11 secondary, 117 primary, and 354 elementary (private) schools, with an attendance of 8,544 pupils (including 523 girls). An Anglo-vernacular school for Chins is managed by the American Baptist Mission, and two Anglo-vernacular schools are maintained or aided by the municipalities of Thayetmyo and Allanmyo-Ywataung. The other secondary schools are vernacular. The Provincial expenditure on education in 1903–4 was Rs. 3,300. The District cess fund spent Rs. 6,800, and municipal funds Rs. 2,200, in the same year; and the receipts from fees amounted to Rs. 4,300.

There are 4 hospitals with accommodation for 88 in-patients. In 1903 the number of cases treated was 36,199, of whom 1,367 were in-patients, and 1,125 operations were performed. The total expenditure was Rs. 32,000, towards which municipal funds contributed Rs. 29,000, and the District cess fund Rs. 2,000.

Vaccination is compulsory only in Thayetmyo town. In 1903–4

the number of persons successfully vaccinated was 15,461, representing 65 per 1,000 of population.

[Colonel H. Browne, *Statistical and Historical Account of the Thayetmyo District* (1873); W. V. Wallace, *Settlement Report* (1902).]

Thayetmyo Subdivision.—Subdivision of Thayetmyo District, Burma, consisting of the THAYETMYO, MINDON, and KAMA townships.

Thayetmyo Township.—Township of Thayetmyo District, Burma, lying between 19° 15′ and 19° 30′ N. and 94° 48′ and 95° 13′ E., on the western bank of the Irrawaddy, with an area of 192 square miles. The population was 41,651 in 1891, and 37,599 in 1901. The decrease took place only in Thayetmyo cantonment, and in the rural areas of the township, while the inhabitants of the Thayetmyo municipality increased during the decade. The township contains 106 villages and one town, THAYETMYO (population, 15,824), the head-quarters of the District and township. Outside the limits of the town the inhabitants are almost wholly Burmese-speaking. The area cultivated in 1903-4 was 25 square miles, paying Rs. 19,000 land revenue.

Thayetmyo Town.—Head-quarters of Thayetmyo District, Burma, situated in 19° 20′ N. and 95° 12′ E., in the centre of an undulating plain on the right bank of the Irrawaddy, about 11 miles south of the old frontier between Upper and Lower Burma, and immediately opposite the town of Allanmyo, with which it is connected by a launch ferry. The name Thayetmyo in its present form means 'mango city' (*thayet* = 'mango'); but this is said to be a corruption of *That-yet-myo* ('city of slaughter'), a name given to the town to commemorate the murder of his sons by a ruler of olden days, who feared they would rebel on attaining manhood. The town is said to have been founded about 1306 by a son of the last king of Pagan, and contains one of the Shwemoktaw pagodas which is alleged to have been erected by Asoka but is not the repository of any antiquities. On the annexation of Pegu the town contained only 200 or 300 houses, but it rapidly grew after becoming a military station. During the ten years ending 1901 the population fell from 17,101 to 15,824, partly owing to the decrease of the garrison, which now consists of the head-quarters and wing of a British regiment and a Native regiment. The cantonment, which occupies a well-timbered area close to the river bank, contains a fine set of barracks, built in 1854. The small fort north of the cantonment is now used as a military prison. The station is one of the healthiest in India for British troops, the death-rate in 1901 being only 2½ per 1,000. In April and May the heat is very great, and the glare off the sandbanks that extend along the river face adds considerably to the discomfort of the residents. At this season the surroundings of the station have a very dried-up and parched appearance, but with the rains

the verdure reasserts itself, and the cold season is distinctly pleasant. The rainfall is moderate, averaging 36 inches per annum.

The town has been administered since 1887 by a municipal committee, which at present consists of 3 *ex-officio* and 9 nominated members. The elective system is not in force. The municipal income and expenditure during the ten years ending 1901 averaged between Rs. 30,000 and Rs. 31,000. In 1903-4 the income amounted to Rs. 30,000 (house and land tax, Rs. 8,300; markets, &c., Rs. 16,700), and the expenditure to Rs. 54,000, the chief items being conservancy (Rs. 8,700) and hospital (Rs. 28,000). The annual income and expenditure of the cantonment fund amounts to about Rs. 13,000. A new municipal hospital has replaced the old one burnt down in 1900. The municipal school educates up to the seventh standard, and has an average attendance of 140. There is a large Central jail on the outskirts of the town. Thayetmyo is an important station of call for river steamers, but it has achieved no special importance as a trade centre. The best known of its industries is silver-work, which can hold its own with that of any other town in Burma.

Thazi Subdivision.—Eastern subdivision of Meiktila District, Upper Burma, comprising the THAZI and WUNDWIN townships.

Thazi Township.—South-eastern township of Meiktila District, Upper Burma, lying across the Mandalay-Rangoon railway, between 20° 43′ and 21° 3′ N. and 95° 56′ and 96° 35′ E., with an area of 696 square miles. The western portion is flat and cultivated, and has a fairly dense population, but the eastern runs up to the hills bordering the Shan plateau and contains few inhabitants. The population was 39,256 in 1891, and 49,824 in 1901, distributed in 316 villages. The head-quarters are at Thazi (population, 1,803), the junction for the Meiktila-Myingyan branch railway, 306 miles from Rangoon and 80 from Mandalay. In 1903-4 the area cultivated was 103 square miles, and the land revenue and *thathameda* amounted to Rs. 1,11,000.

Thegon.—North-western township of the Paungde subdivision of Prome District, Lower Burma, flat, fertile, and thickly populated, lying between 18° 25′ and 18° 46′ N. and 95° 17′ and 95° 34′ E., with an area of 241 square miles. The population, unlike that of several townships in the District, is on the increase. It rose from 53,107 in 1891 to 60,982 in 1901. There are 296 villages, the head-quarters being at Thegon (population, 1,017), situated on the railway, 19 miles south-east of Prome town. The township contains a large lake called the Inma, which is 10 miles long and 4 miles broad, and 12 feet deep in the rains. The area cultivated in 1903-4 was 93 square miles, paying Rs. 97,000 land revenue.

Theinni.—State in the Northern Shan States, Burma. *See* HSENWI.

Theog.—A fief of the Keonthal State, Punjab, lying between 31° 4′ and 31° 9′ N. and 77° 21′ and 77° 31′ E., with an area of 144 square miles. The population in 1901 was 5,654, and the revenue is about Rs. 5,000. A tribute of Rs. 500 is paid to the Keonthal State. The present chief, Tīka Shamsher Chand, exercises full powers, but sentences of death require the confirmation of the Superintendent, Simla Hill States.

Thibaw.—State in the Northern Shan States, Burma. *See* HSĪPAW.

Thigwin.—Township in Myaungmya District, Lower Burma. *See* EINME.

Thongwa.—Former name of a District in the Irrawaddy Division, Lower Burma. *See* MA-UBIN.

Thongwa Township.—South-eastern township of Hanthawaddy District, Lower Burma, wholly level throughout, situated immediately to the west of where the Sittang flows into the Gulf of Martaban. It lies between 16° 39′ and 16° 58′ N. and 96° 23′ and 96° 45′ E., and has an area of 104 square miles. It was constituted in 1901–2, being formed of portions of the Thabyegan and Kyauktan townships, which in 1901 had a population of 47,651, dwelling in 174 villages. The head-quarters are at the village of Thongwa (population, 3,132), on the Hmawwun creek, about 25 miles from the point where that stream flows into the Rangoon river. The area cultivated in 1903–4 was 199 square miles, paying Rs. 4,82,000 land revenue.

Thonze.—Town in the Tharrawaddy subdivision and township of Tharrawaddy District, Lower Burma, situated in 17° 38′ N. and 95° 48′ E., on the railway about 2 miles due south of Tharrawaddy town. Population (1901), 6,578. It was constituted a municipality in 1897. The receipts and expenditure of the municipal fund to the end of 1900–1 averaged Rs. 19,000 and Rs. 14,000 respectively. In 1903–4 the receipts were Rs. 30,000, including house and land tax (Rs. 3,000) and tolls on markets and slaughter-houses (Rs. 17,000); and the expenditure was Rs. 25,000, the chief items being conservancy (Rs. 4,500) and administration (Rs. 3,600). The town contains a dispensary.

Thul.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying in 28° 5′ and 28° 26′ N. and 68° 32′ and 68° 58′ E., with an area of 496 square miles. The population in 1901 was 47,786, compared with 32,706 in 1891. The *tāluka* contains 96 villages, of which Thul is the head-quarters. The density, 96 persons per square mile, slightly exceeds the District average. The land revenue and cesses in 1903–4 amounted to 2½ lakhs. The *tāluka* depends for irrigation upon the Begāri, Unhar Wah, and Desert Canals.

Tiāgar.—Village in South Arcot District, Madras. *See* TYĀGA DURGAM.

Tiar Canal.—A small protective canal in CHAMPĀRAN DISTRICT, Bengal, usually known as the Madhuban Canal.

Tiddim.—Northern subdivision of the Chin Hills, Burma, bounded on the north by the State of Manipur and on the south by the Falam subdivision. The head-quarters are at the village of Tiddim (population, 350), where an Assistant Superintendent is stationed. The population in 1901 was 16,435 (distributed in 75 villages), mostly Sokte and Siyin Chins.

Tigiriā.—One of the Tributary States of Orissa, Bengal, lying between 20° 24′ and 20° 32′ N. and 85° 26′ and 85° 35′ E. It is the smallest of the Orissa States, having an area of only 46 square miles. It is bounded on the north by the State of Dhenkānāl; on the east by Athgarh; on the south by the Mahānadī river; and on the west by Barāmbā. The State is alleged to have been founded about 400 years ago by one Nityānanda Tunga, who is said to have come from the west on a pilgrimage to Purī and to have been directed to the spot by a dream. The name Tigiriā is apparently a corruption of *Trigiri* or 'three hills.' The State has an estimated revenue of Rs. 10,000, and pays a tribute of Rs. 882 to the British Government. The population increased from 20,546 in 1891 to 22,625 in 1901. The number of villages is 102. Tigiriā, though the smallest, is the most densely peopled of the Orissa States, supporting as many as 492 persons per square mile. Hindus number 22,184. The most numerous caste is the Chāsa (7,000). The State is well cultivated, except among the hills and jungles at its northern end. It produces coarse rice and other food-grains, oilseeds, sugar-cane, tobacco, cotton, &c., for the transport of which the Mahānadī affords ample facilities. Bi-weekly markets are held at two villages. Cotton cloth of superior quality is made in the State and largely exported. The road to Barāmbā and Narsinghpur passes within half a mile of the village containing the Rājā's residence. The State maintains an upper primary and 27 lower primary schools.

Tigyaing.—South-eastern township of Kathā District, Upper Burma, lying along the Irrawaddy, south of Kathā, between 23° 37′ and 24° 4′ N. and 95° 58′ and 96° 18′ E., with an area of 352 square miles. The population was 15,892 in 1891, and 16,046 in 1901 (nearly all Burmans), distributed in 116 villages. The head-quarters are at Tigyaing (population, 1,645), prettily situated on a small hill on the western bank of the Irrawaddy. The Gangaw range, passing through the north of the township, ends at Tigyaing, which was formerly the head-quarters of the District. Numerous large plains in the township are watered by creeks, and ample room exists for extension of cultivation. The surveyed area under cultivation in 1903-4 was 16 square miles, and the land revenue and *thathameda* amounted to Rs. 45,800.

Tijāra.—Head-quarters of a *tahsīl* of the same name in the State of Alwar, Rājputāna, situated in 27° 56′ N. and 76° 51′ E., about 30 miles north-east of Alwar city and 16 miles north-east of Khairtal station on the Rājputāna-Mālwā Railway. Population (1901), 7,784. The principal industries are weaving and paper-making. The town possesses a post office, an Anglo-vernacular school, and a hospital with accommodation for 6 in-patients. A municipal committee looks after the lighting and sanitation, the average income, derived mainly from octroi, being about Rs. 3,000 a year, and the expenditure somewhat less. According to tradition, the town was founded by a Jādon Rājput named Tej Pāl, and was formerly called Trigartag. It was one of the chief towns of the Khānzādas of MEWĀT, and was for a long time their capital. To the south of the town is a great Pathān tomb called Bhartari, because the land on which it stands formerly belonged to a Hindu of that name. It is one of the largest tombs in Northern India, and is said to have been built by Alā-ud-dīn Alam Khān, the brother of Sikandar Lodī, who was for a long time governor here. At a short distance to the south-west is a pretty stone mosque, in front of which is a neatly built tomb, said to be the resting-place of Khānzāda Hasan Khān, the opponent of Bābar, who fell on the fatal field of Khānua.

The Tijāra *tahsīl* is situated in the north-east of the State, and comprises the head-quarters town and 189 villages, with a population of 66,826 persons, of whom over one-third are Meos. Under the Mughals Tijāra was a *sarkār* or district in the province of Agra; but down to the reign of Akbar the local Khānzāda or Mewātī chiefs maintained their independence in their mountain fortresses, and often exercised a controlling influence on the Delhi court. On the decline of the empire the tract fell an easy prey to the Jāts, who overran it first about 1720, and held it till the death of their great leader, Sūraj Mal, in 1763. It was then plundered by Sikh freebooters from the Punjab, and the Jāts were ousted about 1765 in the successful effort made by Najaf Khān to restore imperial rule. Ismail Beg, the last distinguished Musalmān who held the *tahsīl*, was dispossessed by the Marāthās, who assigned it with other Mewāt *parganas* to the adventurer, George Thomas, for the maintenance of his mercenaries; but the Jāts of Bharatpur recaptured it in 1796, and it remained in their possession till 1805, when, in consequence of the Bharatpur chief having broken his engagement with the British, it was resumed by the latter and granted to Alwar. In 1826 the Tijāra *tahsīl* was conferred by Mahārao Rājā Banni Singh on Balwant Singh, an illegitimate son of the previous chief (Bakhtāwar Singh). Balwant Singh constructed several handsome buildings and a fine masonry dam, and on his death in 1845 without male issue the *tahsīl* reverted to the State of Alwar.

[*Archaeological Survey of Northern India*, vol. xx, pp. 114–8.]

Tikak.—Coal-mine in Lakhimpur District, Eastern Bengal and Assam. *See* MĀRGHERITĀ.

Tīkamgarh (or Tehrī).—Capital of the Orchhā State in Bundelkhand, Central India, situated in 24° 45′ N. and 78° 50′ E., 36 miles from Lalitpur station on the Midland section of the Great Indian Peninsula Railway. Population (1901), 14,050. The small village named Tehrī (meaning a 'triangle') consisted of three hamlets when, in 1783, Mahārājā Vikramājīt selected this spot for his new capital. Until 1887, the capital was generally known as Tehrī; but in that year, to avoid confusion with Tehrī (Garhwāl) in the United Provinces, the name Tīkamgarh, strictly speaking that of the fort only, was adopted in place of Tehrī and recognized officially. A municipality was constituted in 1891. The committee consists of official and non-official members in the proportion of 1 to 3. The chief buildings are the Mahārājā's palace and the fort. The town also contains a high school, a hospital, a *dāk*-bungalow, a *sarai*, a camping ground, and British and State post offices.

Tikāri.—Town and estate in Gayā District, Bengal. *See* TEKĀRI.

Tilhar Tahsīl.—North-western *tahsīl* of Shāhjahānpur District, United Provinces, comprising the *parganas* of Tilhar, Mīrānpur Katra, Nigohī, Khera Bajhera, and Jalālpur, and lying between 27° 51′ and 28° 15′ N. and 79° 27′ and 79° 56′ E., with an area of 418 square miles. Population increased from 237,385 in 1891 to 257,035 in 1901. There are 558 villages and three towns: TILHAR (population, 19,091), the *tahsīl* head-quarters, KHUDĀGANJ (6,356), and KATRA (6,209). The demand for land revenue in 1903–4 was Rs. 3,46,000, and for cesses Rs. 56,000. The density of population, 615 persons per square mile, is considerably above the District average. This is the most prosperous *tahsīl* in Shāhjahānpur. The Rāmgangā flows on or near the western border, fringed by a tract of rich alluvial soil. This is succeeded by a stretch of clay near the Bahgul river, east of which lies a sandy area. The central and eastern portions consist of a rich fertile loam, crossed by the Garrā. In 1903–4 the area under cultivation was 330 square miles, of which 84 were irrigated. Wells supply two-thirds of the irrigated area, but the Bahgul river is also used for irrigation.

Tilhar Town.—Head-quarters of the *tahsīl* of the same name in Shāhjahānpur District, United Provinces, situated in 27° 58′ N. and 79° 44′ E., on the Oudh and Rohilkhand Railway, and on the road from Shāhjahānpur city to Bareilly. Population (1901), 19,091. The town is said to have been founded in the time of Akbar, but has little history. During the Mutiny the principal Muhammadan residents joined the rebels, and their estates were confiscated. Tilhar was then a small and unimportant place; but the opening of the railway has

stimulated its trade, and it is now the second town in the District, with several commodious markets belonging to the municipality. It contains a branch of the American Methodist Mission and a dispensary. It became a municipality in 1872. During the ten years ending 1901 the income and expenditure averaged Rs. 18,000 and Rs. 15,000 respectively. In 1903–4 the income was Rs. 29,000, including octroi (Rs. 14,000) and rents (Rs. 4,000); and the expenditure was Rs. 29,000. Under native rule Tilhar was chiefly celebrated for the bows and arrows made here; and *pālkīs*, varnished boxes, and similar articles are still made. The chief trade is, however, in unrefined sugar (*gur*) and grain, the latter being a very important article of commerce. Oilseeds are also largely exported. The *tahsīlī* school has 205 pupils, and eight municipal schools have 600 pupils.

Tilin.—Western township of Pakokku District, Upper Burma, lying between 21° 27′ and 21° 57′ N. and 93° 59′ and 94° 22′ E., with an area of 488 square miles. It lies between the Chin Hills and the Pondaung range, which cuts it off from the rest of the District. The chief stream is the Maw, which joins the Myittha river after a short northerly course. The sole cultivation is rice, and this only near the streams, so that in years of drought the township is liable to partial famine. The population was 10,943 in 1891, and 12,183 in 1901, distributed in 120 villages, Tilin (population, 670), on the Maw river, being the head-quarters. About 2,000 Taungthas reside in the township, who are largely employed in rearing silkworms. The area cultivated in 1903–4 was 6 square miles, and the land revenue and *thathameda* amounted to Rs. 27,000.

Tilla.—An eastward continuation of the Salt Range in Jhelum District, Punjab, 3,242 feet above the sea. From the Bunhā torrent the range rises rapidly to the culminating peak of Jogi Tilla and thence sinks as rapidly, but a series of low parallel ridges runs out across the valley of the Kahān. The hill is sometimes used as a summer resort by officers of Jhelum District. A famous monastery of Jogi *fakīrs* is situated here.

Tilothu.—Village in the Sasarām subdivision of Shāhābād District, Bengal, situated in 24° 49′ N. and 84° 6′ E., 5 miles east of the gorge by which the Tutrāhi, a tributary of the Kudra river, leaves the hills. Population (1901), 2,592. This spot is sacred to the goddess Sītala. The gorge itself is half a mile long, terminating in a sheer horseshoe precipice from 180 to 250 feet high, down which the river falls. The rock at first recedes at an angle of 100° for about one-third of the height; but above that it overhangs, forming a re-entering angle. The chief object of interest is an image, bearing the date 1332, which is said to have been placed here by the Cheros. It represents a many-armed female killing a man as he springs from the neck of a buffalo. A fair is

held here every year on the last day of Kārtik, which is attended by about 100,000 persons.

Timbā.—Petty State in MAHĪ KĀNTHA, Bombay.

Tindhāria.—Village in the Kurseong subdivision of Darjeeling District, Bengal, situated in 26° 51′ N. and 88° 20′ E., on the Darjeeling-Himālayan Railway, 2,748 feet above sea-level. The population consists almost entirely of the employés of the railway and their families. Tindhāria contains the railway workshops, employing 250 hands, and a railway hospital and club.

Tindivanam Subdivision.—Subdivision of South Arcot District, Madras, consisting of the *tāluks* of TINDIVANAM, TIRUVANNĀMALAI, and VILLUPURAM.

Tindivanam Tāluk.—North-eastern *tāluk* of South Arcot District, Madras, lying between 12° 2′ and 12° 29′ N. and 79° 13′ and 80° E., on the shore of the Bay of Bengal, with an area of 816 square miles. The population rose from 316,018 in 1891 to 338,973 in 1901. It contains 473 villages and one town, TINDIVANAM (population, 11,373), the head-quarters of the subdivision and of the *tāluk*. The demand for land revenue and cesses in 1903–4 amounted to Rs. 7,78,000. The *tāluk* ranks third in point of area in the District, and is the only one which has no direct irrigation from channels. It is a level plain, standing at a rather higher level than the rest of the District and draining south-eastwards. On the western border are the picturesque hills surrounding GINGEE, but along the coast much of the land is low-lying and swampy.

Tindivanam Town.—Head-quarters of the subdivision and *tāluk* of the same name in South Arcot District, Madras, situated in 12° 15′ N. and 79° 39′ E., on the South Indian Railway. The correct name of the place is Tintrinivanam, meaning 'tamarind jungle.' It consists of several little hamlets, one of which, Gidangal, was once a fortified place. The ruins of ramparts and ditch still exist. The place is a Union under the Local Boards Act, and its population in 1901 was 11,373.

Tinnevelly District (*Tirunelveli*).—A District of the Madras Presidency which occupies the eastern half of the extreme southern end of the Indian peninsula. It lies between 8° 9′ and 9° 43′ N. and 77° 12′ and 78° 23′ E., and has an area of 5,389 square miles, with an extreme length of 120 miles from north to south and a maximum width of 75 miles near the Madura frontier. In shape it is roughly triangular, having the Western Ghāts as its western and the sea as its eastern and southern boundary. On the north it is separated from Madura District by no natural features, but by a parallel drawn east and west through the town of Virudupatti.

The southernmost hills of the Western Ghāts serve as a natural

barrier between the west side of the District and the State of Travancore up to within a few miles of CAPE COMORIN, the extreme southern point of the Indian peninsula. These hills vary from 3,000 to 5,000 feet in height and are clothed with heavy forest. AGASTYAMALAI, half in Tinnevelly and half in Travancore, is their highest peak, rising to 6,200 feet; it was formerly an important astronomical station. Mahendragiri, another peak 14 miles from NĀNGUNERI, 5,370 feet high, is reputed to be the hill from which the monkey-god Hanumān jumped across to Lanka (Ceylon) when he went to gather news of Sītā, the wife of Rāma, whom Rāvana, the demon-king of Ceylon, had carried off.

Physical aspects.

From the base of the Ghāts, where the country is nowhere higher than about 750 feet, the District slopes down eastward to the sea. Besides the Ghāts, there is no range worth the name except the Vallanād hills in the Srīvaikuntam *tāluk*, which rise abruptly from the surrounding plain to a height of over 1,000 feet and form a pleasing contrast to the level ground around them. Along the base of the Ghāts is a belt from 10 to 20 miles wide of red loam and red sand, and fringing the sea is a strip of sandy soil from 3 to 15 miles in breadth. These two tracts widen out and overlap one another as they go southward, occupying the whole of the country to the south of Tinnevelly town. Between them, to the north, the intervening space is occupied by broad plains of black cotton soil.

All the rivers of the District have their sources in the Ghāts and run eastwards to the sea. The TĀMBRAPARNI, the most important of them, rises on the southern slope of the Agastyamalai peak and, after a south-easterly course of 70 miles, empties itself into the Gulf of Manaar. The Chittār, a much smaller stream, drains the mountains on the western border of the Tenkāsi *tāluk* and joins the Tāmbraparni a few miles north-east of Tinnevelly town. The Vaippār, which rises in the Sankaranayinārkovil hills, though a stream of considerable size, does not contribute much to the prosperity of the District, as its supply is too sudden and occasional to be of use in irrigation.

The geological basis of the District is a continuation of the gneiss rock of which the mountains on the west consist. In the plains this is largely covered by more recent formations, but protrudes through them in isolated patches or rounded and often conical masses, some of which supply excellent stone for building and road-making. Of the strata which overlie the gneiss rock, the principal are: first, a quartz, having a considerable percentage of iron, and appearing through the soil in the pale red ridges which are such conspicuous objects in all the *tāluks* bordering the Ghāts; secondly, a *kankar* or nodular limestone underlying a poor stony soil, which is chiefly found in the central

portion of the District; and, thirdly, sandstone alternating with claystone, which forms a coast series and follows the line of the shore at a distance of about 10 miles. This last originally formed a nearly continuous ridge rising to about 300 feet, and through this the rivers descending from the Ghāts have cut their way down to the sea. Round about it lie the *teri* tracts, the surface of which consists entirely of blown sand, and which form one of the most peculiar natural features of the District. In the north, the rock which underlies the plains is covered with a wide spread of black cotton soil, extending from the Madura boundary southward for about 60 miles and having an average breadth of 40 miles. Lastly, we have the river alluvium, which forms a narrow but extremely rich strip on either side of the Tāmbraparni and Chittār rivers.

The District comprises tracts of wide differences in rainfall and elevation, and its flora is consequently varied. Along the sea-shore are salt swamps and the red-sand wastes known locally as *teris*; and the plants of these differ widely from those of the central plain, which resemble those in the rest of the similar tracts on the East Coast. The varying levels of the Ghāts each have their own distinctive flora, the most interesting, perhaps, being the heavy evergreen forest. The characteristic tree of the plains is the palmyra palm, which covers wide areas to the exclusion of all other trees, and is a notable factor in the economic condition of the country.

On the plains of the District there is little in the way of large game, only antelope and occasional leopards being met with; but on the Ghāts occur the wild animals usual in heavy forest of high elevation. The Nīlgiri ibex is found in several localities along this range.

The principal characteristics of the climate of Tinnevelly are light rainfall and an equable temperature. In the hot months, from March to June, the thermometer rarely rises above 95° in the shade; in the coolest months, December and January, it seldom falls below 77°. The mean temperature of Tinnevelly town is 85°, which is the highest figure in the Presidency. This unenviable position is, however, attained less by the heat of its hot months than by the absence of any really cold season. From June onwards, as long as the south-west monsoon lasts, the heat in the tracts lying at the foot of the Ghāts is sensibly diminished by the winds and slight showers which find their way through the various gaps and passes in that range.

The rainfall is greatest near the hills and least on the eastern side of the District. In Tenkāsi and Ambāsamudram the maximum is nearly 60 inches, while the minimum is about 20 inches. In other parts of the District the fall varies from between 40 and 50 inches as a maximum to between 10 and 15 inches as a minimum. The average annual amount received in the District as a whole is about 25 inches,

which is one of the lowest figures in the Presidency. But though its rainfall is scanty, Tinnevelly gets the benefit of the two monsoons, as both cause freshes in the Tāmbraparni. These, indeed, occasionally rise very high and do considerable damage.

History.

Until the eighteenth century the history of Tinnevelly is almost identical with that of MADURA DISTRICT, sketched in the separate article on the latter. The capital of the first rulers of Madura, the PĀNDYAS, is reputed to have been at one time within Tinnevelly District at KOLKAI near the mouth of the Tāmbraparni. Tirumala Naik, the most famous of the Naik dynasty of Madura, built himself a small palace at SRĪVILLIPUTTŪR in the north-west corner of the District.

In 1743, when the Nizām-ul-mulk, the Sūbahdār of the Deccan, expelled the Marāthās from most of Southern India, Tinnevelly passed under the nominal rule of the Nawābs of ARCOT. All actual authority, however, lay in the hands of a number of independent military chiefs called *poligārs*, originally feudal barons appointed by the Naik deputies who on the fall of that dynasty had assumed wider powers. They had forts in the hills and in the dense jungle with which the District was covered, maintained about 30,000 brave (though undisciplined) troops, and were continually fighting with each other or in revolt against the paramount power. A British expedition under Major Heron and Mahfūz Khān in 1755 reduced Tinnevelly to some sort of order, and the country was rented to the latter. He was, however, unable to control the *poligārs*, who formed themselves into a league for the conquest of Madura and advanced against him. They were, however, signally defeated at a battle fought 7 miles north of Tinnevelly. But the utter failure of Mahfūz's government induced the Madras Government to send an expedition under Muhammad Yūsuf, their sepoy commandant, to help him. This man eventually became renter of Tinnevelly, but rebelled in 1763 and was taken and hanged in the following year. Thenceforth the troops in Tinnevelly were commanded by British officers, while the country was administered, on behalf of the Nawāb, by native officials. As this system of divided responsibility was not conducive to the general pacification of the country, the Nawāb was induced, in 1781, to assign the revenues to the East India Company, and civil officers, called Superintendents of Assigned Revenue, were appointed for its administration. The British, however, were at that time too busy with the wars with Haidar Alī to be able to pacify the country thoroughly, and the *poligārs* continued to be troublesome. Encouraged by the Dutch, who had expelled the Portuguese from the Tinnevelly coast in 1658, obtained possession of the pearl fishery, and established a lucrative trade, they were soon again in open rebellion. In 1783 Colonel Fullarton reduced the stronghold at Pānjalam-

kurichi, near Ottappidāram, of Kattabomma Naik, the most formidable of them. In 1797 the *poligārs*, headed by Kattabomma, again gave trouble, joining a rebellion which broke out in the Rāmnād territory. In 1799 Seringapatam fell and the Company's troops were at last free to move. A force was sent to Tinnevelly under Major Bannerman to compel obedience, and the first Poligār War followed. Pānjalamkurichi was taken, its *poligār* hanged, and the estates of his allies confiscated. Some of the *poligārs*, notably the chief of Ettaiyāpuram, helped the British. Two years later, some dangerous characters who had been confined in the fort at Pālamcottah broke loose and raised another rebellion. The operations which followed are known as the second Poligār War. Pānjalamkurichi fell after a most stubborn resistance, the fort was destroyed, and the site of the place was ploughed over. The ringleaders of the rebellion were hanged, others who had assisted in it were transported, and the possession of arms was prohibited. In 1801 the Company assumed the government of the whole of the Carnatic under a treaty with the Nawāb, making him a pecuniary allowance. Tinnevelly thus came absolutely into British hands, and from that date its history has been peaceful.

As the reputed seat of the earliest Dravidian civilization, Tinnevelly possesses much antiquarian interest. The most noteworthy archaeological remains are the sepulchral urns found buried in the sides of the red gravel hills which abound in different parts of the District. Those at Adichanallūr, 3 miles from Srīvaikuntam, the most interesting prehistoric burial-place in all Southern India, are noticed in the separate article on that place. Kolkai and Kāyal, near the mouth of the Tāmbraparni, were the capitals of a later race, but nothing now remains to mark their ancient glory. Among the many temples in the District, those at Tiruchendūr, Alvār Tirunagari, Srīvaikuntam, Tinnevelly town, Nānguneri, Srīvilliputtūr, Tenkāsi, Pāpanāsam, Kalugumalai, and Kuttālam, deserve special mention. Ancient Roman coins are not uncommon in Tinnevelly, and those of the old Pāndyan kings are numerous. Some Venetian gold ducats have also been unearthed in the District.

Population.

The District contains 29 towns, or more than any other in the Presidency, and 1,482 villages. It is made up of the nine *tāluks* of Ambāsamudram, Nānguneri, Ottappidāram, Sankaranayinārkovil, Sāttūr, Srīvaikuntam, Srīvilliputtūr, Tenkāsi, and Tinnevelly, the head-quarters of which are at the places from which they are respectively named. Statistical particulars of these, according to the Census of 1901, will be found on the next page.

The population of the District in 1871 was 1,693,959; in 1881, 1,699,747; in 1891, 1,916,095; and in 1901, 2,059,607. The last

total was made up of 1,798,519 Hindus, 101,875 Musalmāns, and 159,213 Christians. Between 1871 and 1881, owing to the famine of 1876–8, the population was almost stationary. During the next ten years the rate of advance was probably slightly abnormal, owing to the usual rebound after scarcity; and in the decade ending 1901 the increase was about equal to that in the Presidency as a whole. Emigration from the District was, however, considerable during that period. Few people move into it, and the proportion of the inhabitants who had been born within it was higher in 1901 than in any of the southern Districts. In density of population it is above the average for those Districts; the Tinnevelly and Srīvaikuntam *tāluks* support nearly 600 persons per square mile. Between 1891 and 1901 the population of the Ambāsamudram *tāluk* declined, while that of the adjoining area of Nānguneri advanced abnormally. The reason for this was that in the former year the rice harvest in Ambāsamudram, which always attracts coolies from Nānguneri, was being gathered at the time of the Census.

Tāluk.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Sāttūr	560	3	206	186,694	333	+ 1·3	17,635
Srīvilliputtūr	585	4	94	205,745	352	+ 8·0	14,463
Tinnevelly	328	2	123	194,647	593	+ 5·4	27,632
Sankaranayinārkovil	717	2	123	232,980	325	+ 9·0	16,584
Ottappidāram	1,072	2	394	358,568	334	+ 4·8	36,980
Srīvaikuntam	542	7	134	321,534	593	+ 11·8	40,338
Ambāsamudram	481	4	85	182,481	379	− 0·6	19,986
Tenkāsi	374	3	92	174,430	466	+ 12·6	14,755
Nānguneri	730	2	231	202,528	277	+ 16·1	16,459
District total	5,389	29	1,482	2,059,607	382	+ 7·5	204,832

Tinnevelly contains more towns and a larger urban population than any other District in Madras. About 23 per cent. of the people live in towns, which is more than twice the proportion for the Presidency as a whole. These places, however, are not large cities. None of them contains more than 50,000 inhabitants, and only 5 out of the 29 possess more than 25,000. These are the four municipalities of TINNEVELLY (population, 40,469), PĀLAMCOTTAH (39,545), the head-quarters of the District, TUTICORIN (28,048), and SRĪVILLIPUTTŪR (26,382), and the large Union of RĀJAPĀLAIYAM (25,360). Sixteen other Unions have a population of more than 10,000 each. The growth of these towns during the decade ending 1901 was remarkable. The population both of the municipalities and the Unions advanced in the aggregate by nearly one-half. In some cases the increase is partly due to the extension of the official limits of the towns to include suburbs; but

such extensions would not have been made unless these suburbs had advanced in populousness and urban characteristics, and the statistics are therefore signs of real growth.

Tamil is the prevailing vernacular, being spoken by 86 per cent. of the total; but Telugu is the language of 13 per cent., being spoken by more than one-fifth of the inhabitants of the Ottappidāram and Srīvilliputtūr *tāluks* and by nearly a third of those of Sāttūr.

The majority of the Musalmāns of the District are Labbai traders. Christians are proportionately more numerous (8 per cent. of the total) than in any other Madras District, except the Nīlgiris. They have, however, increased more slowly during the last twenty years than the population as a whole.

The great majority of the Hindus are Tamils. The three most numerous castes are the Shānāns (294,000), the Pallans (234,000), and the Maravans (211,000), each of which are found in greater strength in Tinnevelly than in any other District. The first are really even more numerous than the figures show, as at the Census some thousands entered themselves as Kshattriyas, to which aristocratic body they have in recent years claimed to belong. There can be little doubt that, though large numbers of them now subsist by agriculture and trade, they originally followed the despised calling of toddy-drawing; and in consequence of this the claims to be Kshattriyas and to enter Hindu temples which they have of late years put forward with much tenacity caused great resentment among the other Hindus of the District, which finally culminated in the Tinnevelly riots of 1899 referred to below. Their chief opponents in these disturbances were the Maravans, a community of cultivators practically confined to Madura and Tinnevelly, who have a reputation for truculence. With the Kallans they gave much trouble during the Poligār Wars, and they still have an unenviable name for their expertness in dacoity and cattle-lifting. In 1899 it was calculated that, though the Maravans formed only 10 per cent. of the population of the District, they were responsible for 70 per cent. of the dacoities which had occurred during the previous five years.

Larger numbers than usual of the population of Tinnevelly are occupied in toddy-drawing and selling, weaving, rice-pounding, and goldsmith's work, so that the percentage of agriculturists is less than in most Districts. About two-thirds of the people, nevertheless, live by the land.

Of the total Christian population (1901) of 159,213, as many as 158,809 were natives of India. These belong in about equal numbers to the Roman Catholic Church and the various Protestant denominations. Christian missions have existed in Tinnevelly for upwards of three centuries. The history of the Roman Catholic Church in the

District dates from 1532, when Michael Vaz, afterwards Archbishop of Goa, with a Portuguese force assisted the Paravans (fishermen) along the coast of Tinnevelly against the Musalmāns, and subsequently baptized almost the entire caste, or about 20,000 souls. In 1542 St. Francis Xavier commenced his labours among these converts. Not much is known of the subsequent history of the mission till about 1710, which is the probable date of the commencement of the labours of Father Beschi, the celebrated Tamil scholar and author of the religious epic *Tembāvani*. Tinnevelly was always attached to the famous Madura Mission; and much progress was made until the suppression of the Society of Jesus in 1773 by Pope Clement XIV, when matters languished and were only again revived in 1838 under French Jesuits. Tuticorin is the largest centre of the mission, containing three fine churches and many thousands of Christians. The mission has two high schools and more than 100 village schools, besides three convents of Indian nuns and three large orphanages.

Protestant missions in Tinnevelly began with the visit of the famous Swartz to Pālamcottah in 1780. The congregation in those early days consisted of only 39 persons. In 1797 began the movement towards Christianity among the Shānāns, which is going on at the present day, and which has done much to raise the members of that caste in many ways. At present about 76,000 Christians are connected with the missions of the Church of England, the Society for the Propagation of the Gospel, and the Church Missionary Society. Including some 15 European ladies, about 35 missionaries are working for these bodies. They maintain 750 village schools, with more than 25,000 pupils. They also keep up a second-grade college for boys and another (the Sarah Tucker College) for girls, four high schools for boys and two for girls, four normal schools, an art industrial school, and two schools for the blind and the deaf. Eight hospitals are maintained by them for the treatment of the sick of all classes.

Agriculture.

Broadly speaking, the northern half of the District consists of black loam, with a strip of red soil along the foot of the hills south of Srīvilliputtūr; and the southern half consists of red loam or sand, with a strip of black loam in the valley of the Tāmbraparni. The black cotton soil plain in the north is a deep deposit, overlying a substratum of rock. There is but little irrigation in it, except in parts of Srīvilliputtūr. The black soils of the valley of the Tāmbraparni overlie a stiff yellow clay or marl which effectually prevents soakage, and which, keeping the water, vegetable matter, and manure in suspension near the surface, is no doubt the cause of the high fertility of that valley. Much of the high-lying red soil is poor, but in the hollows and along the course of the streams the ground is more fertile. In the south-east stretches a tract of country about

40 miles in length known as the 'palmyra forest,' where the soil is a deep red loam with a surface of sand. In a few well-protected flats the sand merely covers the subsoil; but in the open country it is several feet deep, and in some places blown up into hills 20 feet high. Even where the sand is deepest, the underlying loam, which is present everywhere, causes palmyra palms to flourish in hundreds of thousands.

The prevailing land tenure in the District is *ryotwāri*, but there are also a number of *zamīndāris*. The total area is 5,389 square miles; detailed agricultural particulars for the *zamīndāris*, however, are not on record, and the area for which accounts are kept is only 3,985 square miles. Statistics of this area for 1903–4 are appended, in square miles:—

Tāluk.	Area shown in accounts	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Sāttūr	360	314	22	9	...
Srīvilliputtūr	531	307	80	31	73
Tinnevelly	318	245	55	6	8
Sankaranayinārkovil	464	298	50	4	42
Ottappidāram	373	314	18	7	6
Srīvaikuntam	532	392	76	10	32
Ambāsamudram	473	200	54	1	145
Tenkāsi	207	141	39	2	43
Nānguneri	727	473	68	11	88
Total	3,985	2,684	462	81	437

The staple food-grains are rice, *cholam*, *cambu*, and *rāgi*. Rice is cultivated on 467 square miles, or 22 per cent. of the area cropped; *cambu* comes next, being raised on 195 square miles; while *cholam* and *rāgi* occupy 134 and 71 square miles respectively. Rice is grown on only a comparatively small area in the north-eastern *tāluks* of Sāttūr and Ottappidāram. *Cambu* is rarely grown in Ambāsamudram and not often in Tenkāsi, but elsewhere its cultivation is general and in Sāttūr and Ottappidāram widespread. *Cholam* and *rāgi* are for the most part grown in Sankaranayinārkovil, Nānguneri, and Srīvilliputtūr. Of the pulses, which are found mainly in the southern and south-western *tāluks*, horse-gram is the most important. Nānguneri contributes most largely to the area under this class of grain. Cotton is the principal industrial crop, being raised on 365 square miles in 1903–4, and Tinnevelly is one of the leading cotton-growing areas in the Presidency. Senna, for which the District was once famous, is still cultivated in the Tinnevelly *tāluk*. Gingelly is of importance in all the *tāluks* except Sāttūr and Ottappidāram. The cultivation of the palmyra palm and the gathering and preparation of its products, especially toddy, form one of the most important industries in the District. Thousands of people are entirely dependent on this tree for their livelihood.

The ryots of the District are generally energetic and industrious, those in the northern *tāluks*, owing probably to the less favourable conditions prevailing there, being more so than their brethren in the south. The advantages of good manure, rotation of crops, &c., are well understood; but no attempt has been made to depart from the old ways, either by introducing new and improved implements or by raising other than the usual staples. An experimental farm has recently been started at Koilpatti, in the centre of the northern half of the District, to attempt to popularize the cultivation of better varieties of 'dry' grains by improved methods; but it is too early yet to say how far it will induce the people to move out of the beaten track. The ryots are very slow in taking advantage of the provisions of the Land Improvement Loans Act, only Rs. 29,000 having been advanced under it during the sixteen years ending 1904. Well-sinking is the only work for which loans are sought.

There is little or no systematic cattle-breeding in the District. The usual nondescript animals kept by the ryots are allowed to multiply without restriction or selection. Large cattle-fairs are held in various parts of the District, notably at Sivalaperi, Kanniseri, Kalugumalai, and Muttalapuram. The animals raised in Rājapālaiyam and Sivagiri are comparatively superior, owing, probably, to the good pasture available at the foot of the adjoining hills. Ponies of small size are bred in the eastern parts of the Srīvaikuntam *tāluk* for drawing the *jatkas*, or springed hackney carriages, which are used all over the District. There are no noteworthy breeds of sheep or goats.

Of the area cultivated in 1903-4, only 462 square miles were irrigated from all sources. Most of this (267 square miles) was watered from about 2,300 tanks (artificial reservoirs), and a considerable portion (120 square miles) from 52,000 wells. Nearly all the remainder was supplied from Government canals, chiefly those which take off from the TĀMBRAPARNI. These irrigate the main portion of the 'wet' land in the Ambāsamudram, Tinnevelly, and Srīvaikuntam *tāluks*, and are referred to in the separate article on that river. The Tēnkasi *tāluk* and parts of Tinnevelly are watered from the Chittār. Nānguneri is irrigated mainly from tanks, some of which are very large, supplied by streams from the hills. The north-western *tāluks* of Sankaranayinārkovil and Srīvilliputtūr depend mainly on the north-east monsoon; and in them irrigation is almost entirely from tanks fed by jungle streams, the supply in which is generally precarious except in favourable years. The black cotton soil *tāluks* of Sāttūr and Ottappidāram contain very little 'wet' cultivation. In the sandy portions of Srīvaikuntam and Nānguneri water can be easily obtained by sinking shallow holes in the ground, but well-sinking in the black cotton soil is a costly matter.

The only real forests in Tinnevelly are those which clothe the Ghāts

on the western border of the District. The approximate area of these is about 520 square miles, of which more than two-thirds is Government 'reserved' forest, while the rest belongs to the *zamīndārs* of Singampatti, Settūr, and Sivagiri. Small timber of good quality, such as teak, *vengai* (*Pterocarpus Marsupium*), &c., is found on the sides of the hills. Owing to their value in protecting the head-waters of the rivers and streams, the evergreen forests are very lightly worked.

Forests, &c.

Early in the last century the attention of the British Government was attracted to the slopes of the Ghāts as affording suitable sites for the growth of cinnamon, cloves, and other tropical products of value, and accordingly in 1802 a large number of such plants were put down. These were managed directly by the Government for some time, but were ultimately parcelled out among private owners. Coffee-planting has been tried for several years on the Tenkāsi and Nānguneri hills, but has not met with success and the estates are no longer maintained. Oranges, pumplemosses (pomeloes), and mangosteens grow on the Kuttālam hills. An interesting experiment is being carried out in the Srīvaikuntam *tāluk*, where an area of nearly 22 miles of shifting sand (*teri*) is being gradually reclaimed by the planting of palmyra palms with under-planting of *viru vettai* (*Dalbergia sympathetica*).

No minerals of value have been found in the District. Tradition speaks of copper being washed down by the Tāmbraparni river; this probably refers to the great quantities of magnetic ironsand which are brought down from the mountains, but no iron manufacture is carried on, nor have any traces of the existence of such an industry in former days been met with. Small garnets are found on the sea-shore near Cape Comorin. Many fine granitoids exist to the south of Pālamcottah. Granite, limestone, and sandstone are largely quarried for commercial purposes. The fine cream-coloured calcareous sandstone quarried at Panampārai in the Srīvaikuntam *tāluk* was used in constructing the churches at Mengnānapuram and Mudalūr, as well as the Hindu temple at Tiruchendūr on the coast. A kind of rock-coral found near Tuticorin is largely used in that town for rough building purposes.

Cotton-spinning and weaving have long been the leading industries in Tinnevelly. In the early years of last century little raw cotton was exported, but a large quantity was made into cloth in the looms of the District. This local industry has now greatly declined, much of the cotton being exported raw to various parts of the world. A considerable portion is, however, spun in the mills at Tuticorin, Koilpatti, and Pāpanāsam for local consumption as well as for export. At Vīravanallūr and Kallidaikurichi, in the Ambāsamudram *tāluk*, there is a thriving weaving

Trade and communications.

industry, most of the *mundus*, the national dress in Travancore, sold in that State being manufactured at these two places. A kind of coarse towelling is made at Srīvilliputtūr and the adjoining villages. Melapālaiyam, a suburb of Pālamcottah chiefly inhabited by Labbais, is noted for its small cotton carpets, which command a large sale locally.

At Mannārkovil and Vāgaikulam near Ambāsamudram there is a flourishing brass and bell-metal industry. Reed mats of a peculiarly fine texture are made at Pattamadai near Sermādevi, but the industry is in the hands of a few poor Musalmān families and shows no signs of improvement. Good hand-made lace of European patterns is manufactured in some of the mission stations. The District has earned a name for the superior make and finish of its bullock-carts.

A large proportion of the population of Tinnevelly subsist by industries connected with the palmyra palm, such as drawing toddy from the tree, boiling this down into jaggery (coarse sugar), making mats from the leaves or fibre, and so on. The palmyra industry is in fact the most important in the District, and employs a much larger number of persons than the crafts connected with cotton, though the actual money value of the cotton goods turned out may be greater than that of the produce of the palmyra.

There are a large number of steam cotton-cleaning and pressing factories in the District, situated at Tuticorin on the coast, at Pāpanāsam, and at Sāttūr, Virudupatti, and Koilpatti in the centre of the cotton-growing area. In 1903 the total number of these factories was 16, and they employed more than 1,000 hands. Salt takes the next place. There are ten salt factories in Tinnevelly (those at Tuticorin, Arumuganeri, Kāyalpatnam, and Kulasekarapatnam being the most important), with an out-turn (in 1903) of about 64,000 tons of salt, which brought in a duty to Government of nearly 35 lakhs. On the coast are also several fish-curing yards under Government supervision. The immense number of palmyra palms in the District has led to the establishment of three sugar refineries (two at Tinnevelly town and one at Alvār Tirunagari) under native management. Owing to financial difficulties, however, these are not systematically worked at present.

The chief exports from Tinnevelly are cotton, jaggery, chillies, tobacco, palmyra-fibre, salt, dried salt fish, and cattle; and the principal imports are cotton-twist and yarn, European piece-goods, and kerosene oil. There are three recognized ports, TUTICORIN, Kulasekarapatnam, and Kāyalpatnam; but the first is the only one which is important. Its trade is noticed in the separate article on that town. There is a considerable export of dried salt fish from the coast to Rangoon, Madras, and Ceylon. The pearl and chank (*Turbinella rapa*) fisheries in the Gulf of Manaar are Government monopolies, but the

profit is always doubtful and uncertain. Tinnevelly was once celebrated for its trade in senna. This has now almost died out, as Egyptian senna is considered better and is less adulterated. A considerable volume of trade, chiefly rice from the Tāmbraparni valley, passes over the trunk road leading from Tinnevelly to Trivandrum. There are two European exchange banks at Tuticorin, and two similar institutions under native management at Tinnevelly. Much of the distribution of the imports and the collection of merchandise for export is done at weekly markets. Some of these are under the control of the local boards, and in 1903–4 the fees collected at them brought in an income of Rs. 7,500. The trade at the seaports is largely in the hands of the Labbais, but Tuticorin contains the agencies of several European firms.

The South Indian Railway (metre gauge) enters the District from the north near Virudupatti, and runs south in an almost straight line to Maniyāchi through Sāttūr and Koilpatti. From Maniyāchi it turns east to Tuticorin on the coast, thus completing through communication between Madras city and the chief southern port of the Presidency. From the same place a railway branches off to Tinnevelly, and on to Shencottah on the eastern frontier of Travancore territory, through the fertile *tāluks* of Ambāsamudram and Tenkāsi. The portion of this last between Tinnevelly and Shencottah was opened in 1903, and has been extended to Quilon on the West Coast through the gap in the Western Ghāts near Kuttālam. The District board has also recently resolved to levy a cess under Act V of 1884 for the construction of another much-needed line, on the metre gauge, from Tinnevelly town to Tiruchendūr, a famous Saivite shrine on the coast.

The local boards maintain 831 miles of metalled and 100 miles of unmetalled roads. There are avenues of trees along 889 miles of them. The centre upon which all the main lines of communication converge is Tinnevelly town. The trunk road from Tinnevelly to Madura has lost much of its importance since the opening in 1876 of the South Indian Railway, which runs nearly in the same direction. Another important line of communication is the road from Tinnevelly to Nāgercoil in South Travancore via Nānguneri. Most of the trade between Tinnevelly and Travancore used to be carried over this route before the recent opening of the railway to Quilon.

Famine.

The District generally is not liable to serious droughts, but the northern *tāluks* and Nānguneri are affected in years of scanty rainfall. Tinnevelly suffered somewhat in the great famine of 1876–8, but the distress was not as severe as in other Districts. Relief-works were started in December, 1876, but they were discontinued in May, 1877, and gratuitous relief was given for only a short period. The highest number relieved in any one month was

only 23,000. The distress, however, necessitated the grant of remissions of revenue amounting to 8½ lakhs. Since then the District has suffered slightly from deficient rainfall in several years. In 1891–2 remission of the assessment on unirrigated land to the extent of nearly Rs. 66,000 and on 'wet' land of over 4 lakhs was granted, and about 875 people on an average were employed daily on relief-works from March to August, 1891. The recent opening of the Quilon branch of the South Indian Railway, which traverses the whole length of the Ambāsamudram and Tenkāsi *tāluks*, touching all the important towns and centres of trade, will in future facilitate the collection and distribution of grain over all parts of the District.

Administration.

There are four subdivisions in the District, all of which, except the head-quarters charge comprising the *tāluks* of Tinnevelly and Sankaranayinārkovil, are at present managed by officers of the Indian Civil Service. The Tuticorin subdivision comprises the two large *tāluks* of Ottappidāram and Srīvaikuntam. The *tāluks* of Nānguneri, Ambāsamudram, and Tenkāsi, lying at the foot of the Ghāts, form the Sermādevi subdivision. The Sāttūr subdivision, formerly under a Deputy-Collector but recently placed in charge of a member of the Indian Civil Service, includes the two northern *tāluks* of Sāttūr and Srīvilliputtūr. A *tahsīldār* is posted at the head-quarters of each *tāluk* and a stationary sub-magistrate also. In addition, there are deputy-*tahsīldār* magistrates at Pālamcottah, Vilātikulam, Tuticorin, Rādhāpuram, Varttirāyiruppu, and Virudupatti. Pālamcottah is the head-quarters of the District Judge, the District Superintendent of police, the District Surgeon, the Executive Engineer and District Forest officer, and of the Bishop of Tinnevelly.

Civil justice is administered by a District Judge, two Sub-Judges—one at the District head-quarters and the other at Tuticorin—and seven District Munsifs, two of whom are stationed at Tinnevelly and the other five at Srīvilliputtūr, Sāttūr, Tuticorin, Srīvaikuntam, and Ambāsamudram respectively. There are, in addition, nearly 420 village courts for the disposal of petty suits under Madras Act I of 1889. The District is one of the most litigious in the Presidency, contributing nearly 7 per cent. of the total number of suits annually filed.

Besides the Court of Session, the Additional Sub-Judge at Tuticorin is also authorized to try criminal cases as Assistant Sessions Judge. The District contributes about 5 per cent. of the total number of criminal cases in the Presidency, and has an unenviable reputation for dacoity, robbery, and house-breaking. The followers of the *poligārs* (local chieftains) of the Maravan caste used, in the days before British rule, to live mainly by plunder, and the predatory spirit still survives in their descendants. *Kāval* fees, a relic of the old blackmail levied by these chiefs, are still paid all over the District by villagers as the price

of exemption from molestation by these people, except in a few villages which have been strong enough to make a stand against this extortion. A movement to throw off the system is spreading among the people, but experience proves that it is most difficult to eradicate. The antipathy which has long existed between the Maravans and the Shānāns, culminating in the unfortunate riots of 1899, has for long been a source of anxiety to the District officials. Special police forces have been temporarily stationed at the centres where disturbances are most likely to arise, and the preventive provisions of the Criminal Procedure Code have been systematically put into operation. Special schools have also been started in the more important centres of the Maravans, to disseminate education and the principles of honest living among this caste.

No exact details are available regarding the land revenue system which prevailed in Tinnevelly under the Naik Rājās of Madura. It is usually supposed that they were content with one-sixth of the gross produce, but Wilks says that one-third was the usual proportion taken from 'dry' land. There is no doubt their assessments were light in comparison with those of the Musalmāns who succeeded them.

The Hindu government was subverted by the Musalmāns between 1736 and 1739. From 1739 to 1801, when the British finally assumed control of the country, a succession of managers were deputed to administer the revenue of Tinnevelly. Of these fifteen were Musalmāns, nine were Hindus, and two were British officers. From 1739 to 1770 the assessment was paid in kind, land watered by the Tāmbraparni or from never-failing watercourses being charged twice as much as fields irrigated from tanks. There were, however, additional cesses, collected in money, which varied from time to time. In 1770 the system of dividing the crop between the cultivator and the Government was introduced. The latter took 60 per cent. of the gross outturn on 'wet' land, after first deducting some small cultivation expenses and money cesses. This share was reduced to 50 per cent. in 1780, and continued at that rate till 1800.

In 1801, when Mr. Lushington took charge of the District on behalf of the Government, he commenced operations with the measurement of all land, both 'wet' and 'dry,' and an attempt at the classification of the latter. Subsequent administration differed according as the land was 'wet' or 'dry.' In the 'wet' villages the system of division of the crop was continued, the Government share being raised to 60 per cent. in 1803 and the other demands continuing as before. The evils of this system (which are described in detail in the Tinnevelly *District Manual*, pp. 71–2) led to the adoption, in 1808, of a three years' village lease, by which the villages were rented for fixed money payments to their inhabitants. The payments were calculated on the

average collections of previous periods, with a deduction to compensate for the undue exactions of the officials of the Nawābs, and a system of monthly instalments was introduced by which the demand was distributed over the eight months between December and September. This village lease system was a failure owing to various causes, the chief being a fall in the price of grain, and was not continued. In 1813 decennial leases, based on much the same principles, were introduced into the irrigated villages of the Tāmbraparni valley, but villages which objected to it were allowed to revert to the system of division of the crop. By 1814, only 106 of the 1,177 villages in the valley remained under this latter system, the rest having accepted the decennial lease. In 1820 the Collector recommended a reduction of 12 per cent. in the rentals fixed for the decennial leases in the 'wet' villages. The alteration actually made was the introduction of the *olungu* system, which came into force in 1822 and lasted till 1859. This consisted in the payment to Government of an assumed or estimated share of the produce, the value of which was commuted at a standard price modified by the current prices of the day. It was advantageous to the ryots and eventually altogether displaced the system of division of crops. In 1859 the *mottamfaisal* system was introduced. This was a modification of the *olungu* method, the variations in the conversion rate according to current prices being abandoned, and a standard price adopted once for all as a permanent conversion rate. As prices soon after began to rise, while the fixed rate was low, this alteration was greatly in favour of the ryots and resulted in a rapid increase of cultivation.

The revenue history of 'dry' villages is different. During the time of the Nawābs the renters levied a lump annual assessment on them, which was distributed among the several cultivators by the chief ryots on a classification of the soils of the various holdings. In 1802 Mr. Lushington fixed the rates on these fields by taking the average collections of former years as his standard, and for some years his assessments underwent alternate reduction and enhancement. In 1808 they were permanently reduced to rates which varied, according to the soil, from Rs. 2-5 to 10 annas per acre; and they remained the same, with a few unimportant alterations, till 1865.

The various experiments above described left the assessment of the land revenue payable by the individual ryot very much to the discretion of the chief inhabitants, and the results were frequently unsatisfactory. The Government accordingly at length resolved to resettle the land revenue on the *ryotwāri* principle. This resettlement was begun in 1865 and completed in 1878, and was ordered to continue in force for thirty years. It was preceded by a complete survey of all the land in the District; and, though this proved that the area in occupation was 7 per cent. in excess of that shown

in the accounts, the assessment arrived at was ½ per cent. less than before. The average assessment per acre on 'dry' land is now R. 1 (maximum Rs. 5, minimum 3 annas), and on 'wet' land Rs. 6 (maximum Rs. 12, minimum Rs. 2). The period of this settlement has already expired, and a resurvey and resettlement was undertaken towards the close of 1904 in the Tinnevelly, Tenkāsi, and Ambāsamudram *tāluks*.

The revenue from land and the total revenue of the District in recent years are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	32,45	29,50	34,89	36,18
Total revenue . .	38,76	40,58	53,15	58,53

Local affairs are managed by a District board composed of 32 members, and by the four *tāluk* boards of Tinnevelly, Tuticorin, Sermādevi, and Sāttūr, the areas under which are identical with the subdivisions of the same names. There are also 36 Unions established under Madras Act V of 1884, of which 22 have a population of more than 10,000 each. Next to Madura, Tinnevelly contains the largest number of such Unions in the Presidency. The income of all the local boards in 1903–4 was Rs. 5,43,000, of which Rs. 2,77,000 was contributed by the land cess and about Rs. 60,000 by tolls. The expenditure in the same year was Rs. 5,30,000, of which Rs. 2,60,000 was devoted to the construction and upkeep of roads and buildings, the other chief items being education, sanitation, and vaccination.

Police affairs, as in other Districts, are managed by a District Superintendent. He is stationed at Pālamcottah, and is helped by an Assistant Superintendent at Tuticorin and a Special Assistant at Sivakāsi, who is in charge of the special temporary forces mentioned below and also does general police work. There are 85 police stations and 1,087 constables under 19 inspectors, besides 1,182 rural police under the control of the *tahsīldārs*. Special temporary forces have been stationed at Sivakāsi, Koilpatti, Sūrandai, and Marugalkurichi, in consequence of the Shānān riots already referred to. The District jail is at Pālamcottah, and there are 15 subsidiary jails, with accommodation for 255 prisoners.

In the matter of education, Tinnevelly (according to the Census of 1901) ranks fifth among the Districts of the Presidency, 10 per cent. of the population (19 per cent. males and 1·5 per cent. females) being able to read and write. Education is most advanced in the *tāluks* of Tenkāsi, Ambāsamudram, and Tinnevelly along the valley of the Tāmbraparni, and most backward in the cotton soil portions of the District. The total number of pupils under instruction in 1880–1

was 34,863; in 1890-1, 53,130; in 1900-1, 66,283; and in 1903-4, 73,726, of whom 10,819 were girls. On March 31, 1904, there were 1,297 primary, 75 secondary, and 11 special schools, besides 3 colleges. There were in addition 538 private schools, with 13,196 male and 544 female scholars. Of the 1,386 educational institutions classed as public, 2 were managed by the Educational department, 58 by local boards, and 7 by municipalities, 1,052 were aided from public funds, and 267 were unaided. Of the male population of school-going age 29 per cent. were in the primary stage of instruction, and of the female population of the same age about 6 per cent. Among Musalmāns the corresponding percentages were 90 and 8. About 150 schools are maintained for Panchamas or depressed castes, with 5,600 pupils. Chiefly owing to missionary influence, female education is comparatively advanced in Tinnevelly, there being 1,900 girls in secondary and nearly 8,200 in primary schools. There were also nine girls reading in the collegiate course at the Sarah Tucker College at Pālamcottah. The great majority of the girls belong to the native Christian community. The two Arts colleges for males are in Tinnevelly town. About Rs. 4,65,000 was spent on education in 1903-4, of which Rs. 1,30,000 was derived from fees. Of the total, Rs. 2,60,000 was devoted to primary education.

There are 11 hospitals and 12 dispensaries in the District. Seven of the former and nine of the latter are maintained by the local boards, and the remainder (four hospitals in the municipal towns and three dispensaries, two in Tinnevelly town and one in Pālamcottah) from municipal funds. Besides these, the various mission agencies have established four hospitals and three dispensaries. These institutions have accommodation for 109 male and 73 female in-patients. A Local fund hospital for women and children has recently been built at Pālamcottah. About 339,000 persons, of whom 2,500 were in-patients, were treated in 1903, and 10,000 operations were performed. The total cost of all the institutions was Rs. 61,000, which was mainly met from Local and municipal funds, and to a small extent from the income of endowments, and (in the case of mission hospitals) from subscriptions.

Vaccination has always been fairly satisfactorily conducted in Tinnevelly, and in 1903-4 a large number of operations were performed at the comparatively low cost for each successful case of 3 annas 1 pie. The proportion of successful operations per 1,000 of the population was 39·4, which again was the highest rate in the Presidency except in the Nīlgiris. Vaccination is compulsory in the municipalities and in 19 out of the 36 Unions.

[Further particulars of Tinnevelly District will be found in the *District Manual* by A. J. Stuart (1879), and in Bishop Caldwell's *History of Tinnevelly* (1881).]

Tinnevelly Subdivision. — Subdivision of Tinnevelly District, Madras, comprising the *tāluks* of TINNEVELLY and SANKARANAYINĀRKOVIL.

Tinnevelly Tāluk.—*Tāluk* in the centre of the District of the same name, Madras, lying between 8° 36′ and 8° 57′ N. and 77° 34′ and 77° 51′ E., with an area of 328 square miles. The population in 1901 was 194,647, compared with 184,728 in 1891. The demand for land revenue and cesses in 1903–4 amounted to Rs. 3,81,000. The *tāluk* is the most densely populated in the District, having nearly 600 persons per square mile. It contains 123 villages, besides the two municipal towns of TINNEVELLY (population, 40,469), the head-quarters, and PĀLAMCOTTAH (39,545), situated on opposite banks of the Tāmbraparni river. It consists, as respects soil and general features, of two distinct portions: namely, the valleys of the Tāmbraparni and Chittār, and the high 'dry' land which lies between these rivers and on either side of them. Its 'wet' land is supplied by means of five channels, the Kodagan, Pālayan, Tinnevelly, Marudūr East, and Marudūr West channels, leading from dams across the former of these streams. About fifteen other channels are supplied by the Chittār. The soil of the 'dry' land is of the red and sandy series, and generally poor.

Tinnevelly Town (*Tirunelveli*).—Chief town of the District and *tāluk* of the same name, Madras, situated in 8° 44′ N. and 77° 41′ E., on the left bank of the Tāmbraparni river, 446 miles from Madras city by rail. It is the largest town in the District, but the administrative head-quarters are at Pālamcottah, on the opposite bank of the river.

The early history of the place is not of much note. About 1560 it was rebuilt by Viswanātha, the founder of the Naik dynasty, who also erected many temples in it. The chief shrine at present is a large building dedicated to Siva, which is beautifully sculptured and contains many inscriptions. Mr. Fergusson considers (*Indian and Eastern Architecture*, p. 366) that, though this is among neither the largest nor the most splendid temples in Southern India, it has the rare advantage of having been built on one plan at one time, without subsequent alteration or change.

The population of Tinnevelly rose from 24,768 in 1891 to 40,469 in 1901 (of whom 34,664 were Hindus, 4,998 Musalmāns, and 807 Christians), and it ranks eighteenth among the towns of the Presidency. It was constituted a municipality in 1866. The municipal income and expenditure during the ten years ending 1902–3 averaged Rs. 36,500 and Rs. 34,900 respectively. In 1903–4 they were Rs. 58,700 and Rs. 59,700. The chief sources of income are the house and land taxes, and tolls. Its limits extend to the bank of the river, but the main town is more than a mile and a half dis-

tant and the water-supply is inadequate. A scheme for furnishing both Tinnevelly and Pālamcottah with drinking-water from the Tāmbraparni has long been under consideration, but financial and other difficulties have prevented it from being matured. The drainage of the town is also faulty. A proposal has recently been made to combine the two municipalities, in order to facilitate the undertaking of large public works for their common benefit. There are two second-grade colleges for boys in the town, one of which, the Hindu College, is managed by a local committee, while the other is maintained by the Church Missionary Society. An industrial school is kept up by the District board. Near the Tinnevelly railway station are the jaggery (coarse sugar) warehouses of a European firm, from which jaggery is sent by rail to their distillery and sugar factory at Nellikuppam; and two sugar factories under native management. The latter, however, owing to financial embarrassments, are not at present working. There is also some timber trade in the town, the wood being brought down from Shencottah in Travancore.

Tinsukiā.—Village in the Dibrugarh subdivision of Lakhimpur District, Eastern Bengal and Assam, situated in 27° 29′ N. and 95° 21′ E. It contains a dispensary, and the weekly market is attended by large numbers of coolies from the tea gardens in the neighbourhood. Tinsukiā is rapidly increasing in importance, as it is the junction of the Assam-Bengal and Dibru-Sadiyā Railways.

Tippera State.—Native State in Eastern Bengal and Assam. *See* HILL TIPPERA.

Tippera (*Tripurā*).—District in the Chittagong Division of Eastern Bengal and Assam, lying between 23° 2′ and 24° 16′ N. and 90° 34′ and 91° 22′ E., with an area of 2,499 square miles. It is bounded on the north-west by the Districts of Dacca and Mymensingh; on the north-east by Sylhet; on the east by the State of Hill Tippera; on the south by Noākhāli; and on the west by the river Meghnā, which separates it from Farīdpur, Dacca, and Mymensingh.

Physical aspects.

Tippera is a level alluvial plain broken only by the isolated Lālmai hills, 5 miles west of Comilla, which rise to a height of 40 to 100 feet. It is well cultivated and is intersected in all directions by rivers, which in the south and west are tidal. To the east the country undulates, and runs into the series of low forest-clad hills which form the most westerly of the Hill Tippera ranges. The west is inundated during the rains. The drainage passes west and south-west across the District from the watershed in Hill Tippera, and finds an exit either in the Meghnā or in the Bay of Bengal. The MEGHNĀ sweeps past the western border, a noble estuary some 4 miles in breadth; the other important rivers are the Gumtī, Dākātia, and Titās. The Gumtī rises in Hill Tippera, and

flows westwards past the town of Comilla, joining the Meghnā above Daudkāndi in 23° 22′ N. and 90° 42′ E.; its direct length in British territory is 36 miles. The Dākātia also follows a westerly course from its source in Hill Tippera until it joins the Meghnā, passing the villages of Lākshām and Hājiganj. Its original exit into the Meghnā was at Raipur, but the main stream now passes Chāndpur down what was originally an artificial channel. The Titās is the chief river of the north of the District and passes Brāhmanbāria. These rivers are navigable throughout the year by boats of 4 tons burden for the greater part of their course. The Muharī, Bijaigangā, and Burhī Gangā are navigable by boats of 4 tons burden during the rains. Extensive marshes in the north of the District, covering an aggregate area of 92 square miles, are utilized for pasture and for growing reeds.

The Lālmai hills and the undulating country in the east are formed chiefly of Upper Tertiary rocks. The rest of the District is covered by recent alluvium, consisting of sandy clay and sand along the course of the rivers, and of fine silt consolidating into clay in the flatter parts of the river plain.

The Lālmai range is covered with a forest of trees and brushwood, including species of *Linostoma*, *Dalhousiea*, *Licuala*, *Connarus*, *Grewia*, and *Bridelia*. The flat ground is intersected by rivers and *khāls* often partially affected by the tide; these streams are fringed by a riparian vegetation of reeds and bushes similar to those met with in the northern Sundarbans. The villages are built amid plantations of areca palms, bamboos, jack and mango trees. In the marshes are found *solā* (*Aeschynomene paludosa*), *Sesbania*, *sītalpāti* (*Phrynium dichotomum*), and similar aquatic plants; and the *muktapāti* (*Clinogyne dichotoma*), a scitamineous shrub, often covers large areas.

In the forest-clad hills along the eastern border tigers, leopards, wild hog, and various species of wild cats are to be found.

The temperature is moderate, the mean for the year being 78° and the average maximum never exceeding 91°. Humidity is exceptionally high, the average for the year being 86 per cent. Rainfall commences early with violent 'nor'-westers' in March and April, when the normal fall is 2·9 and 5·5 inches respectively. The average for the year is 75 inches, of which 10·3 fall in May, 14·1 in June, 13 in July, 12·9 in August, 9·2 in September, and 4·7 in October.

History.

The District of Tippera formed part of the dominions of the Rājā of Hill Tippera State until 1733. Its history prior to that date is that of HILL TIPPERA. This State was invaded by the Muhammadans as early as 1279 and again in 1345 and 1620, but on each occasion the Rājā ultimately succeeded in maintaining his independence. In 1733, however, Shujā-ud-dīn Khān, Governor of Bengal, overran the country, and from that date the plains

portion of the State, corresponding to the modern Tippera District and part of Noākhāli, became an integral part of the Mughal empire. In 1765 the administration of the District passed into the hands of the East India Company; but even then more than a fifth of the present area was under the immediate rule of the Rājā of Hill Tippera, who paid a tribute of ivory and elephants. At that time Tippera and Noākhāli Districts were included in the *ihtimām* or division of Jalālpur, which was administered by two native officers until 1769, and from that date until 1772 by three English Supervisors. In 1772 a Collector was appointed, and nine years later Tippera and Noākhāli were constituted a single revenue charge; they were subsequently separated in 1822. Since then great changes have been made in the boundaries of the District, but the only event which has occurred to break the peaceful monotony of British rule was a serious raid in 1860 by the Kūkis or Lushais. These savages entered the District from Chhāgalnaiya, burnt and plundered fifteen villages, murdered 185 British subjects, and carried off 100 captives. In 1861 a large body of military police, under Captain Raban, marched against Rattan Puiyā's village in the south Lushai Hills to avenge this raid; but no sooner did they appear in sight than the Kūkis themselves set fire to the place, and fled into the jungle, where pursuit was impossible.

Population.

The population is increasing rapidly, having risen from 1,404,045 in 1872 to 1,514,361 in 1881, to 1,782,935 in 1891, and to 2,117,991 in 1901. The last figure gives a density of 848 persons per square mile, which is by far the highest rate in the Division, Noākhāli having only 694 and Chittagong 543 persons per square mile. The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Comilla . .	1,142	1	2 939	957,699	839	+ 16.6	67,175
Brāhmanbāria .	769	1	1,319	677,084	880	+ 14.7	38,563
Chāndpur .	588	1	1,103	483,208	822	+ 30.0	30,452
District total	2,499	3	5,361	2,117,991	848	+ 18.8	136,190

The three towns are COMILLA, the head-quarters, BRĀHMANBĀRIA, and CHĀNDPUR. The density of population is greatest in the fertile tract along the bank of the Meghnā (except in the extreme north, where there are numerous unreclaimed marshes), and in the old settled tract to the east, north, and south of Comilla. It is lowest in the centre and south of the District, but this tract is being rapidly de-

veloped. The District is eminently prosperous, the Muhammadan population is prolific, and jute cultivation has received a great impetus from the construction of the Assam-Bengal Railway. The increase during the last decade is entirely due to the procreative capacity of the people living in the District, and has not been assisted by immigration. The exceptional increase in the Chāndpur subdivision, which has more than doubled its population since 1872, is caused by the rapid spread of jute cultivation, the formation of new accretions along the bank of the Meghnā, and the development of trade in Chāndpur town. The District is very fertile, and is capable of supporting a much larger population than it at present bears; and its continuous prosperity has not been broken by any serious crop-failure or wave of unhealthiness. The language spoken is the dialect of Bengali known as Eastern or Musalmāni Bengali.

Muhammadans number 1,494,020, or nearly 71 per cent. of the population; they are increasing far more rapidly than the Hindus, who now number 622,339, or 29 per cent.

Nearly all the Muhammadans are Shaikhs, who are probably descendants of converts from Hinduism. The most numerous Hindu castes are the fishing and cultivating Chandāls (115,000) and Kaibarttas (72,000), and the weaving Jugis (68,000). The Kāyasths (writers) number 70,000, and the Brāhmans 36,000. The population is almost entirely agricultural, 79 per cent. being dependent on this means of livelihood.

There are 292 Christians, of whom 143 are natives. A branch of the New South Wales Baptist Mission conducts medical and educational work at Comilla, and the New Zealand Baptist Mission has branches at Brāhmanbāria and Chāndpur.

Agriculture.

The soil is exceedingly fertile, and the rainfall is sufficient to enable the cultivators to dispense with irrigation. The chief agricultural statistics for 1903-4 are shown below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.
Comilla . . .	1,142	644	159
Brāhmanbāria . .	769	595	28
Chāndpur . . .	588	489	35
Total	2,499	1,728	222

Of the cultivated area, 27 per cent. bears two crops in the year. Rice is the principal staple, occupying 1,459 square miles, or 84 per cent. of the net cropped area. There are three harvests. The autumn crop is sown on the higher lands and is reaped in July and August, the spring

crop is harvested in April, and the winter crop between November and January; the last mentioned covers two-thirds of the entire area under rice. Next comes jute (416 square miles), the cultivation of which is rapidly extending and which now occupies 24 per cent. of the net cropped area. Tippera is thus one of the largest jute-growing Districts in the Province. Oilseeds, principally rape and mustard, occupy only one-sixth of the area devoted to the cultivation of jute. Among the food-crops grown in the winter are *kalai* (*Phaseolus radiatus*), *khesāri* (*Lathyrus sativus*), peas, and *rahar* (*Cajanus indicus*). The betel-nut palm (*Areca Catechu*) and the *pān* creeper (*Piper Betle*) are extensively grown in the south-west, and chillies (*Capsicum frutescens*) in the neighbourhood of the Meghnā river, the silt of which is especially suited to this crop. Other spices are coriander, turmeric, and ginger. Vegetables, such as beans, *arum* (*Colocasia Antiquorum*), *baigun* (*Solanum Melongena*), yams, and pumpkins, are favourite articles of diet. Sugarcane and tobacco are grown on a small scale. Cultivation is extending rapidly with the growth of population, and the marshes are gradually silting up and being reclaimed. The peasantry are prosperous and rarely require Government loans.

The cattle are poor, and pasture has become scarce with the extension of cultivation. A large cattle market is held weekly at Bātākāndi during the dry season. Irrigation is little practised; but water is sometimes lifted on to high lands, and in the east of the District hill streams are dammed for this purpose.

Trade and communications.

The Maynāmati cloth manufactured near Comilla finds an extensive sale in the local markets, and is exported to the neighbouring Districts. Brass utensils, pottery, rough agricultural tools, cane and bamboo baskets, mats, and *gur* are also manufactured. Jute is pressed and baled by machinery at Chāndpur, Akhaurā, and Chātalpār. The *sītalpāti* reed (*Phrynium dichotomum*) is woven into fine mats.

The Assam-Bengal Railway now carries the bulk of the traffic in the east of the District, but in the west the rivers are still largely used. The principal exports are jute and rice; about 45,000 tons of jute and 26,000 tons of rice were exported by rail in 1903-4. Jute is sent to Nārāyanganj, Calcutta, and Chittagong, and much of it is now baled at Chāndpur; the rice goes to Assam, Nārāyanganj, and Chittagong. Minor exports are betel-nuts, jaggery, gunny-bags, hides, mats, chillies, oilseeds, and country cloth. Cotton is brought down from Hill Tippera and re-exported. The chief imports are cotton goods, cotton twist, salt, and kerosene oil; their value is considerably less than that of the exports. The chief centres of trade are Chāndpur and Matlab Bāzār on the Meghnā; Hājīganj, Chitosi, Daulatganj, and Bāghmāra on the Dākātia; Comilla, Gaurīpur, Lālpur, Jafarganj, Companyganj,

and Pānchpukuriā on the Gumti; and Chānduriā, Brāhmanbāria, Akhaurā, and Rāmchandrapur on the Titās.

The Assam-Bengal Railway traverses the east of the District from north to south, communicating with Chāndpur by a branch line from Lāksham; another branch from Lāksham to Noākhāli has recently been completed. The District board maintains 309 miles of road, of which 10 miles are metalled. The Dacca-Chittagong trunk road, which runs north to Comilla and thence west to Daudkāndi, is maintained from Provincial funds. Other important roads connect Comilla with Chuntā, via Brāhmanbāria, and Sarail with Chāndpur and Companyganj.

Water communications are important, as 630 miles are navigable throughout the year and 460 more during the rains; in fact, in the rainy season the roads are but little used, and the people move about and transport their goods mainly by water. The Assam steamers call at Chāndpur, and the railway steamers ply thence to Goalundo; daily steamers run also in connexion with the Assam-Bengal Railway from Akhaurā to Chānduriā via Brāhmanbāria. There are many important ferries across the Meghnā and Gumti rivers.

Administration.

For purposes of administration the District is divided into three subdivisions, with head-quarters at COMILLA, BRĀHMANBĀRIA, and CHĀNDPUR. At Comilla the District officer is ordinarily assisted by a staff of five Deputy-Magistrate-Collectors. Chāndpur subdivision is in charge of a Joint or Assistant Magistrate and Brāhmanbāria of a Deputy-Magistrate-Collector; an additional Deputy-Magistrate-Collector is posted to the latter and a Sub-deputy-Collector to the former subdivision.

The District and Sessions Judge, four Sub-Judges, and six Munsifs are stationed at Comilla, three Munsifs each at Brāhmanbāria and Chāndpur, and two each at Nabīnagar and Kasbā. The criminal courts include those of the District and Sessions Judge, the District Magistrate, and the above-mentioned Deputy-Magistrates. Culpable homicide is common, and is generally due to land disputes; offences against women appear to be on the increase.

The District was first assessed by the Muhammadan government for Rs. 92,993, of which, however, the Rājā of Hill Tippera retained Rs. 45,000, so that the net demand was only Rs. 47,993. In 1739 an enhancement was made, and by 1763 the revenue had risen to Rs. 1,89,751. At the Permanent Settlement the assessment of this District and of Noākhāli jointly was fixed at 9·94 lakhs. By 1800 this had grown to 11·56 lakhs, probably owing to the resumption of invalid revenue-free grants. The demand from Tippera alone in 1903–4 was 10·89 lakhs, due from 2,376 estates. Of these, 2,070 estates paying 9·39 lakhs were permanently settled, 56 paying

Rs. 28,000 were temporarily settled, and the remainder, 250 estates paying 1·22 lakhs, were managed direct by Government. The incidence of the revenue on each cultivated acre is R. 0–14–9, the revenue representing 25·8 per cent. of the rental, which is 42 lakhs. Most of the large proprietors are absentees. There is an enormous number of tenures of various kinds, some of which are held at fixed rates in perpetuity, while others, such as the *tashkhīsi*, are liable to enhancement from time to time. A full account of these tenures will be found in chapter iv of the Settlement Report of the Chakla Roshnābād estate. This is the most important estate in the District. It belongs to the Rājā of Hill Tippera, and has recently been surveyed and settled. Statistics of rentals for the District are not forthcoming, but in the Chakla Roshnābād estate the all-round rate per acre for land held by settled and occupancy ryots is Rs. 3–5–1. For cultivated lands in this estate ryots at fixed rates pay Rs. 2–1–3 and Rs. 2–3–7 per acre, settled and occupancy ryots Rs. 4–1–7 and Rs. 3–11–2, non-occupancy ryots Rs. 3–4–0 and Rs. 2–6–0, and under-ryots Rs. 4–4–3 and Rs. 4–12–6 in the two portions of the estate. The average area of a settled ryot's holding is 2·9 acres in the north and 3 acres in the south of the estate.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	10,16	10,41	10,58	11,06
Total revenue . .	16,27	18,38	23,22	24,68

Outside the Comilla, Brāhmanbāria, and Chāndpur municipalities, local affairs are managed by a District board, with a local board in each subdivision. In 1903–4 the income of the District board was Rs. 2,31,000, of which Rs. 1,15,000 was derived from rates; and the expenditure was Rs. 2,45,000, including Rs. 1,04,000 spent on public works and Rs. 70,000 on education.

Embankments have been constructed to confine the Gumtī river below Comilla, and thus to protect the country from inundation; in 1845 they were made over to the *zamīndārs* for maintenance.

The District contains 13 *thānas* or police stations and 4 outposts. The force under the District Superintendent in 1903 numbered 3 inspectors, 37 sub-inspectors, 19 head constables, and 317 constables, while the village watch consisted of 296 *daffadārs* and 3,207 village *chaukīdārs*. The District jail at Comilla has accommodation for 308 prisoners, and sub-jails at the subdivisional head-quarters for 29 prisoners.

At the Census of 1901, 6·4 per cent. of the population (12·1 males

and 0·5 females) were returned as literate; but those who knew English were below the average for Eastern Bengal. The total number of pupils in the schools increased from 74,174 in 1883–4 to 83,675 in 1892–3, but fell again to 69,740 in 1900–1. The numbers at school in 1903–4 were 71,913 boys and 9,037 girls, being respectively 44·1 and 5·8 per cent. of those of school-going age. Educational institutions, public and private, in that year numbered 2,728, including an Arts college, 101 secondary schools, and 2,281 primary schools. The expenditure on education was 3·35 lakhs, of which Rs. 19,000 was met from Provincial funds, Rs. 65,000 from District funds, Rs. 1,400 from municipal funds, and 1·82 lakhs from fees. The most important institution is the Arts college at Comilla. Ten primary schools have been opened for the Tipperas dwelling in the Lālmai hills.

In 1903 the District contained 18 dispensaries, of which 4 had accommodation for 46 in-patients. Altogether 287,000 out-patients and 580 in-patients were treated at these dispensaries during the year, and 7,000 operations were performed. The expenditure was Rs. 26,000, of which Rs. 1,200 was met from Government contributions, Rs. 13,000 from Local and Rs. 4,000 from municipal funds, and Rs. 6,000 from subscriptions.

Vaccination is compulsory only within the municipal areas. In 1903–4 the number of successful vaccinations was 75,000, representing 35 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. vi (1875); the Rev. James Long, 'Abstract of the Rājmāla,' *Journal of the Asiatic Society of Bengal*, vol, xix, p. 533 (1850); A. Mackenzie, *North-East Frontier of Bengal* (Calcutta, 1869 and 1884); and J. G. Cumming, *Settlement Report of Chakla Roshnābād Estate* (Calcutta, 1899).]

Tipperas.—Tribe in Eastern Bengal and Assam. *See* HILL TIPPERA.

Tiptūr.—South-western *tāluk* of Tumkūr District, Mysore, containing the Turuvekere sub-*tāluk*, and lying between 13° 0′ and 13° 26′ N. and 76° 21′ and 76° 51′ E., with an area of 508 square miles. The population in 1901 was 90,709, compared with 78,867 in 1891. The *tāluk* contains four towns, Tiptūr (population, 3,560), the head-quarters, Turuvekere (2,333), HONNAVALLI (2,247), and Nonavinkere (1,585); and 391 villages. The land revenue demand in 1903–4 was Rs. 2,00,000. The *tāluk* drains to the Shimsha, running along the eastern border, and is generally undulating. In the extreme north and west are rocky hills, spurs of the Hirekal group. On the south-east lie hills yielding fine black hornblende, which has been much quarried for pillars of temples, &c. The soil is mostly gravelly, but reddish and mixed with sand in the centre and south. Coco-nut palms are extensively cultivated, both with and without irrigation. The coco-nuts of Honnavalli are specially noted for their flavour.

Tīrāh.—A mountainous tract of 'unadministered' territory in the North-West Frontier Province, lying between 33° 37′ and 34° N. and 70° 30′ and 71° 15′ E. It is inhabited in the summer months by all the sections of the Orakzai, two sections of the Jowāki Afrīdis, and by the Kulla Khel subsection of the Asho Khel sections of the Adam Khel Afrīdis. The name is also used in an extended sense to include almost the whole territory except the Bāzār and Khyber valleys inhabited by these tribes, the portions occupied by them in the winter months being distinguished as Lower Tīrāh. Tīrāh thus consists of the country watered by the Mastūra, one of the main branches of the Bārā, which flows through the centre of the country, the Khānki Toi, and the Khurmāna—three rivers which rise within a few miles of Mittughar (12,470 feet), a point on the Safed Koh in 33° 55′ N. and 70° 37′ E.

At Mittughar the Safed Koh range splits up into several branches, between which lie the valleys of Tīrāh. The principal of these are the Rājgal, Maidān, and Warān, inhabited by Afrīdis; and the upper portions of the Mastūra and Khānki Tois and of the Khurmāna Darra, which are occupied by the Orakzai. Of the various branches of the Safed Koh, the most northern runs due north from Mittughar for about 16 miles, and then divides into two spurs. One of these runs northward and, after throwing out to the east lesser spurs which enclose and form the Bāzār, Khyber, and Shilmān valleys, abuts on the Kābul river. The other, known as Surghar, runs eastward and, dividing the Bāzār and Chura valleys from that of Bārā, ends in the Peshāwar valley in the Kajūri plain. A second branch runs south-east, dividing Afrīdi Tīrāh from the Khurmāna Darra, and throwing out to the east two spurs, one of which divides the Rājgal from the Maidān valley, while the other, which divides Mastūra from Maidān in its prolongation eastwards, ends at Tānda Utmān Khel, where it meets the combined streams of Warān and Mastūra. At Srikando, a depression due north of this range, the valleys of Warān and Maidān are separated. The main spur known as the Saran Sar range ends abruptly at the junction of the two branches at So Toi or Maruāni, which is separated from the Kajūri plain by the Gandah Gallha.

Another range, the Sampagha, after throwing out a large spur which divides the Khānki Toi from the Khurmāna Darra, continues eastward, separating the Khānki Toi from the Mastūra valley, to the Mazighar peak (7,940 feet), where it turns sharply to the north to Landūkai and then again past Kohāt. The Zawa and Sāmāna range in its eastern extension ends at Shābu Khel, where it is cleft by the Khānki Toi, which runs east and west between the Khānki valley on one side and Mīrānzai on the other.

The valleys round the sources of the main rivers have an average

elevation of 5,000 to 7,000 feet, and are buried in snow in winter, but afford abundant pasturage in summer. In winter the climate of Tīrāh is intensely cold, except in the Bārā, Lower Mastūra, and Khānki valleys, which become hot and unhealthy later in the year. Elsewhere the summer climate is pleasant and healthy. The rainfall exceeds that of Peshāwar and Kohāt Districts. That on the Sāmāna averages 21 inches a year, and in the Khānki valley about the same, while in the Khurmāna and Upper Mastūra valleys it is greater, and in the Bārā and Lower Mastūra less.

The original inhabitants of Tīrāh were the Tīrāhis, probably a Tājik race, who were driven out of the country by the Pīr-i-Roshan, 'the apostle of light'; and a remnant of them fled to Nangrahār. Soon afterwards, in 1619 or 1620, Mahābat Khān, *Sūbahdār* of Kābul under the emperor Jahāngīr, treacherously massacred 300 Daulatzai Orakzai, who were Roshānia converts; and, during his absence on a visit to Jahāngīr at Rohtās, Ghairat Khān was sent with a large force via Kohāt to invade Tīrāh. He advanced to the foot of the Sampagha pass, which was held by the Roshānias under Ihdād and the Daulatzai under Malik Tor. The Rājputs attacked the former and the latter were assailed by Ghairat Khān's own troops, but the Mughal forces were repulsed with great loss. Six years later, however, Muzaffar Khān, son of Khwāja Abdul Hasan, then *Sūbahdār* of Kābul, marched against Ihdād by the Sugāwand pass and Gardez, and after five or six months' fighting Ihdād was shot and his head sent to Jahāngīr. His followers then took refuge in the Lowaghar; and subsequently Abdul Kādir, Ihdād's son, and his widow Alai, returned to Tīrāh. The death of Jahāngīr in 1627 was the signal for a general rising of the Afghāns against the Mughal domination. Muzaffar Khān was attacked on his way from Peshāwar to Kābul, and severely handled by the Orakzai and Afrīdis, while Abdul Kādir attacked Peshāwar, plundered the city, and invested the citadel. Abdul Kādir was, however, compelled by the jealousy of the Afghāns to abandon the siege and retire to Tīrāh, whence he was induced to come into Peshāwar. There he died in 1635. The Mughals sent a fresh expedition against his followers in Tīrāh; and Yūsuf, the Afrīdi, and Asār Mīr, the Orakzai chief, were at length induced to submit, and received lands at Pānīpat near Delhi. Simultaneously operations were undertaken in Kurram. Yet, in spite of these measures, Mīr Yakūt, the imperial Dīwān at Peshāwar, was sent to Tīrāh in 1658 to repress an Orakzai and Afrīdi revolt.

Since the decay of the Mughal empire Tīrāh has been virtually independent, though owning at times a nominal allegiance to Kābul. Tīrāh was first entered by a British force in 1897, when the Orakzai and Afrīdis rose in *jihād* or religious war against the British. The

Orakzai attacked the Sāmāna, and the Afrīdis attacked Landi Kotal and the other posts in the Khyber Pass. These violations of British territory necessitated the dispatch of 34,500 men into Tīrāh, under the late Sir William Lockhart. The main body advanced from Shināwari in the Mīrānzai valley over the Chagur Kotal, the precipitous heights of Dargai near which, being held in force by the enemy, were gallantly stormed. The troops advanced across the Khānki and Mastūra valleys over the Sampāgha and Arhanga passes to Maidān and Bāzār, whence the whole of Tīrāh was overrun, returning to Peshāwar by the Bārā valley in December. The names of the principal subdivisions of the two main tribes are given in the articles on Afrīdis and Orakzai.

Tirāwari (or Azamābād-i-Talāwari, the Tarain of the earlier Muhammadan historians).—Village in the District and *tahsīl* of Karnāl, Punjab, situated in 29° 48′ N. and 76° 59′ E., 14 miles south of Thānesar and 84 north of Delhi, on the Delhi-Umballa-Kālka Railway. Tirāwari is identified as the scene of Muhammad of Ghor's defeat by Prithwī Rāj (Rāi Pithora), the Chauhān king of Ajmer, in 1191, and of the former's victory over that king in 1192. In 1216 Tāj-ud-dīn Yalduz, who had made himself master of the Punjab, advanced against Shams-ud-dīn Altamsh, but was defeated by the latter near Tarain. It derives its modern name of Azamābād from Azam Shāh, son of Aurangzeb, who was born in the town. In 1739 Nādir Shāh occupied the place, then a fortified town, after battering its walls, and marched to encounter Muhammad Shāh. A great *rabāt* or fortified *sarai* still exists at Tirāwari, and the walls round the village are in excellent preservation.

Tirhut.—Formerly a District of Bengal, separated in 1875 into the two Districts of Muzaffarpur and Darbhangā. The name is still loosely applied to Muzaffarpur.

Tirorā.—Northern *tahsīl* of Bhandāra District, Central Provinces, lying between 21° 10′ and 21° 47′ N. and 79° 43′ and 80° 40′ E., with an area of 1,328 square miles. The population in 1901 was 291,514, compared with 334,579 in 1891. The density is 220 persons per square mile. The *tahsīl* contains 571 inhabited villages. Tirorā, the head-quarters, is a village of 3,640 inhabitants, 30 miles from Bhandāra town, on the Bengal-Nāgpur Railway. Excluding 88 square miles of Government forest, 56 per cent. of the available area is occupied for cultivation. The demand for land revenue in 1903–4 was Rs. 1,46,000, and for cesses Rs. 22,000. The *tahsīl* includes 11 *zamīndāri* estates covering an area of 769 square miles, of which 163 are forest. It consists roughly of an open level tract of rice-growing land, with forests towards the eastern border. The cultivated area in 1903–4 was 657 square miles, of which 40 were irrigated.

Tīrthahalli.—South-western *tāluk* of Shimoga District, Mysore, lying between 13° 27′ and 13° 56′ N. and 75° 2′ and 75° 31′ E., with an area of 476 square miles. The population in 1901 was 57,553, compared with 59,229 in 1891. The *tāluk* contains one town, Tīrthahalli (population, 2,623), the head-quarters; and 248 villages. The land revenue demand in 1903–4 was Rs. 1,81,000. The Tunga river enters the *tāluk* in the south and flows north-west to near Mulbāgal, where it is joined by the Begārhalla from the south. It then runs east, and turns north along the boundary. All the minor streams, said to number 75, flow into the Tunga, except a few in the north-west which join the Sharāvati. The *tāluk* is essentially Malnād—hills, forests, areca gardens, and running streams being general. The west rests on the Ghāts, and is covered with splendid forest, only the hill summits being bare. The chief heights in the *tāluk* are Kavaledurga (3,058 feet) and Kundadagudda (3,207 feet). Superior ironstone is found at Kabbinadagudda ('iron hill'), the iron made from which the natives consider to be as good as steel. The forest is disappearing, owing to the demand for leaf-manure for areca gardens. Areca-nuts, pepper, cardamoms, and rice, with a little coffee, are the principal products. Large vessels of potstone are made at Kavaledurga, and silver cups at Tīrthahalli.

Tiruchendūr.—A famous place of pilgrimage on the coast of the Srīvaikuntam *tāluk*, Tinnevelly District, Madras, situated in 8° 30′ N. and 78° 7′ E., 32 miles from Pālamcottah, with which it is connected by a trunk road. It contains a wealthy and much-frequented temple, built out into the sea and possessing a lofty tower which is a landmark for miles to mariners. The floating population in Tiruchendūr is always very large, owing to the weekly and monthly festivals at the temple. Out of 26,056 people enumerated here at the Census of 1901, more than a third were pilgrims to a feast which was then proceeding, and the town is not normally as populous as this figure would indicate. Tiruchendūr is a favourite resort in the hot season, the cool breeze from the sea moderating the heat of the plains. A railway line on the metre gauge is proposed to be constructed to the place from Tinnevelly by the District board.

Tiruchengodu Tāluk.—*Tāluk* in the south-west corner of Salem District, Madras, lying between 11° 15′ and 11° 45′ N. and 77° 45′ and 78° 12′ E., with an area of 637 square miles. As compared with the rest of the District it is exceptional in its configuration, being a hot glaring plain, the monotonous aspect of which is relieved only by the hill-fortresses of Tiruchengodu and Sankaridrug, and the silver thread of the Cauvery which winds to the west and south. The Tirumanimuttār and Sarabhanganadī are the chief rivers, but the cultivation is mostly unirrigated and the *tāluk* is liable to attacks of scarcity. The population increased from 248,679 in 1891 to 289,717 in 1901,

and the density is the highest in the District, being 455 persons per square mile. There are 166 villages, and only one town, TIRUCHENGODU (population, 8,196), the head-quarters. The demand for land revenue and cesses in 1903-4 amounted to Rs. 4,88,000.

Tiruchengodu Town.—Head-quarters of the *tāluk* of the same name in Salem District, Madras, situated in 11° 22′ N. and 77° 53′ E., 5 miles from Sankaridrug station on the Madras Railway. Population (1901), 8,196. The town is celebrated for the shrine on its hill, which is one of the great temples of the Konga Vellālas and attracts thousands of pilgrims.

Tiruchuli.—Western *samīndāri tahsīl* in the Rāmnād subdivision and estate, Madura District, Madras. The population in 1901 was 166,769, compared with 164,239 in 1891. It contains 354 villages and two towns: ARUPPUKKOTTAI (population, 23,633), the head-quarters, which carries on an extensive trade with the neighbouring District of Tinnevelly, and Pālaiyampatti (4,967). The chief manufacture is the weaving of cotton cloths of inferior quality. The country is for the most part black cotton soil; it is desolate and arid, the monotony of the plain being relieved only by palmyra palms and patches of low scrub. The irrigated area is, proportionately to the total extent, very small.

Tirukkalikkunram (otherwise called Pakshitīrtham).—Town in the District and *tāluk* of Chingleput, Madras, situated in 12° 36′ N. and 80° 3′ E., on the road from Chingleput to Sadras, about half-way between the sea-coast and the former town. Population (1901), 5,728. Near it is a ridge terminating in a peaked hill 500 feet above sea-level, on which stands a temple dedicated to Siva. This is an important place of pilgrimage. The name Tirukkalikkunram means 'hill of the sacred kites,' and was doubtless originally given to this ridge and its shrine, whence it was afterwards applied to the village below. Every day two birds of the kite species come to the mountain and are fed by a *pandāram* or priest. They are declared to have originally come from Benares. A plunge in the tank called the Pakshitīrtham, or 'bathing-place of the birds,' in the village is believed to cure all kinds of diseases, including leprosy. The town is at present entirely inhabited by persons connected with the temple, or by shopkeepers who cater for the wants of the pilgrims flocking to it from all parts all the year round, and particularly during the various festivals. Charitable gentlemen have constructed resthouses for the benefit of these devotees.

Tirukkoyilūr Subdivision.—Subdivision of South Arcot District, Madras, consisting of the *tāluks* of TIRUKKOYILŪR and KALLAKURCHI.

Tirukkoyilūr Tāluk.—Central inland *tāluk* of South Arcot District, Madras, lying between 11° 38′ and 12° 5′ N. and 79° 4′ and 79° 31′ E., with an area of 584 square miles. The population in 1901 was

285,068, compared with 261,026 in 1891. It contains 350 villages and one town, TIRUKKOYILŪR (population, 8,617), the head-quarters of the subdivision and of the *tāluk*. The demand for land revenue and cesses in 1903–4 amounted to Rs. 5,84,000. Two of the chief rivers of the District, the Ponnaiyār and the Gadilam, cross the *tāluk*; and on the former, 3 miles below Tirukkoyilūr, a dam has been constructed for irrigation which feeds some important channels. In the west the *tāluk* is diversified by a few stony granite hills and ridges, but the rest consists of a featureless plain of alluvial soil sloping gradually down to the sea.

Tirukkoyilūr Town.—Head-quarters of the subdivision and *tāluk* of the same name in South Arcot District, Madras, situated in 11° 58′ N. and 79° 12′ E., on the south bank of the Ponnaiyār. The South Indian Railway passes through it, and there is a proposal to construct a branch to Trichinopoly. The place contains two famous temples, one dedicated to Vishnu and the other to Siva. The population in 1901 was 8,617, and it is a Union under the Local Boards Act. Not far from it is a dam across the Ponnaiyār which supplies an important series of irrigation channels.

Tirumakūdal-Narsipur.—Central *tāluk* of Mysore District, Mysore State, lying between 12° 6′ and 12° 26′ N. and 76° 47′ and 77° 8′ E., with an area of 225 square miles. The population in 1901 was 87,680, compared with 83,454 in 1891. The *tāluk* contains four towns, BANNŪR (population, 5,119), TALAKĀD (3,857), Tirumakūdal-Narsipur (2,406), the head-quarters, and Sosale (1,989); and 125 villages. The land revenue demand in 1903–4 was Rs. 1,47,000. The Cauvery flows through the *tāluk* from north-west to south-east, receiving in the centre the Kabbani from the west. An unbroken belt of 'wet' cultivation lies on both sides of the Cauvery, which is here a wide shallow river with sandy bed. Black soil abounds along its banks and in the low-lands, but in the uplands to the west the soil is very poor. Much of the rice land is *inām*, or revenue free. There are a few isolated rocky hills.

Tirumala (or Upper Tirupati).—TIRUPATI, in the *tāluk* of Chandragiri in North Arcot District, Madras, is celebrated throughout Southern India for the temple on Tirumala, the holy hill, 2,500 feet high. This place, often known as Upper Tirupati, is 6 miles distant from Tirupati town and situated in 13° 41′ N. and 79° 21′ E. The shrine is dedicated to Venkateswaraswāmi, an incarnation of Vishnu, and is considered so holy that formerly no Christian or Musalmān was allowed even to ascend the hill. Since 1870, however, European magisterial and police officers go up occasionally on duty, and visitors are sometimes allowed there as a special case, provided that they bring no low-caste servants, and have obtained the special permission of the District Magistrate

and the *mahant* or trustee. But no European has ever entered the temple itself, and there is no description on record of its interior. From all parts of India thousands of pilgrims annually flock to Tirupati with rich offerings to the idol. Up to 1843 the temple was under the management of Government, which derived a considerable revenue from these offerings; but now they are made over to the *mahant*, who is also the head of a religious *math* (or monastery) situated in the town. During the first six years of British rule the income of the temple averaged upwards of 2 lakhs, but the amount is said to have decreased of late. The hill on which the temple stands possesses a number of the usual holy bathing-places, some of which are picturesquely situated.

Tirumangalam Tāluk.—*Tāluk* in the west of the Madura subdivision of Madura District, Madras, adjoining Tinnevelly, and lying between 9° 37′ and 10° 5′ N. and 77° 42′ and 78° 7′ E., with an area of 745 square miles. The population in 1901 was 265,396, compared with 264,621 in 1891. The *tāluk* contains one town, TIRUMANGALAM (population, 8,894), the head-quarters and a station on the South Indian Railway; and 276 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 4,50,000, of which Rs. 38,000 was *peshkash* paid by *zamīndāri* estates. The *tāluk* consists for the most part of black cotton soil, assessed at Rs. 2 an acre or slightly less. It is largely inhabited by the thief-caste of the Kallans, who are notorious cattle-lifters. The irrigation sources are mostly rain-fed. A hill called Saduragiri is visited by pilgrims from various parts of the District on the festival of Adi Amāvasi. A small temple at Kovilpatti near Vikramangalam is noted for its stone-carving, and its conservation has been undertaken by Government.

Tirumangalam Town.—Head-quarters of the *tāluk* of the same name in Madura District, Madras, situated in 9° 50′ N. and 77° 59′ E., on the main line of the South Indian Railway, about 12 miles south of Madura city. Population (1901), 8,894. The town is said to owe its origin to a Vellāla colony dating from 1566. It is noted for its dyed cloths, and contains a cotton-ginning factory. The air of the place is considered to be particularly favourable to the recovery of persons suffering from asthma.

Tirupati.—Town in the Chandragiri *tāluk* of North Arcot District, Madras, situated in 13° 38′ N. and 79° 24′ E., in the valley, about 3 miles broad, which divides the Tirupati hills from those of the Kārvetnagar *zamīndāri*. Population (1901), 15,485. It is a flourishing and busy place, and is crowded at all times with pilgrims to the famous shrine on TIRUMALA. The town contains several important temples under the management of the *mahant* of this shrine. A municipality was constituted in 1886. The municipal receipts and expenditure during the ten years ending 1902–3 averaged Rs. 39,100 and Rs. 59,700

respectively. In 1903–4 the income was Rs. 18,200, chiefly derived from house and land taxes and water-rate; and the expenditure was Rs. 21,400. The apparent excess of expenditure over income is due to the construction of water-works from funds previously contributed by Government. The brass industry of the town is well-known; a large encrusted oval tray made here gained a first prize and silver medal at the Delhi Darbār Exhibition of 1903. The wood-carving also deserves mention.

Tiruppattūr Subdivision.—Subdivision of Salem District, Madras, consisting of the TIRUPPATTŪR and UTTANGARAI *tāluks*.

Tiruppattūr Tāluk.—*Tāluk* of Salem District, Madras, lying between 12° 17′ and 12° 47′ N. and 78° 24′ and 79° 2′ E., with an area of 539 square miles. The lower portion is composed of four valleys of varying size. The largest of the four is the bare southern stretch of country through which the Pāmbār glides. This is in striking contrast to the second, the rich valley of the Pālār, thickly wooded with coconut groves with here and there a patch of corn-fields. Quite different features are presented by the other two valleys: the rugged Vellakuttai hollow, lying between the triangular-shaped Yelagiri and the hog-backed Nekkananamalai; and the fertile Alangayam basin, bounded on the west by the Yelagiri and on the east by the picturesque Javādis. This last is the fairest of all the valleys in the District, and its beauty and luxuriance won the special affection of Munro when he served in Salem. The population in 1901 was 205,986, compared with 188,825 in 1891. There are 323 villages, and two towns of commercial importance: namely, TIRUPPATTŪR (population, 18,689), the head-quarters of the subdivision and *tāluk*, and VĀNIYAMBĀDI (12,005), the station of a deputy-*tahsīldār*. These two towns include a large Muhammadan community, and the *tāluk* contains the largest number of the followers of that faith in the District. The demand for land revenue and cesses in 1903–4 was Rs. 2,00,000.

Tiruppattūr Town (1).—Head-quarters of the subdivision and *tāluk* of the same name in Salem District, Madras, situated in 12° 29′ N. and 78° 34′ E., 137 miles from Madras by the south-west line of the Madras Railway. Population (1901), 18,689, of whom more than a third are Muhammadans. The town has always been a favourite station, and was the original British capital of the District, Colonel Read, the first Collector, having made it his head-quarters in 1792. It was constituted a municipality in 1886. The municipal receipts and expenditure during the ten years ending 1902–3 averaged Rs. 25,000 and Rs. 24,700 respectively. In 1903–4 the income was Rs. 56,000, and the expenditure Rs. 44,000; of the former Rs. 31,000 was contributed by Government, and the rest was principally derived from the house and land taxes and from tolls.

Tiruppattūr Tahsīl.—*Zamīndāri tahsīl* belonging to the Sivaganga Estate, situated in the northern portion of the Rāmnād subdivision, Madura District, Madras. The population in 1901 was 209,036, compared with 200,087 in 1891. It contains 366 villages and two towns: TIRUPPATTŪR (population, 5,881), the head-quarters and the station of a deputy-*tahsīldār*, and KĀRAIKKUDI (11,801). The chief sources of irrigation are the Pālār river and rain-fed tanks; but the *tahsīl* depends in large measure for its food-supply upon the neighbouring *tāluk* of Melūr, half of which is supplied with water from the PERIYĀR PROJECT. Among its manufactures may be noted brass vessels and coco-nut fibre. The country is a level plain, broken only by a few hills near Pirānmalai and Karisappatti, and the soil is red sand.

Tiruppattūr Town (2).—Head-quarters of the *tahsīl* of the same name in the Rāmnād subdivision of Madura District, Madras, situated in 10° 7′ N. and 78° 37′ E. Population (1901), 5,881. Except that it was once the residence of a petty chief and is now the head-quarters of the deputy-*tahsīldār*, it is a place of no particular interest.

Tiruppūr.—Town in the Palladam *tāluk* of Coimbatore District, Madras, situated in 11° 6′ N. and 77° 22′ E., on the main line of the Madras Railway, 30 miles from Coimbatore. Population (1901), 6,056, of whom over one-fifth are Muhammadans. It is a place of some commercial activity, and, being surrounded by cotton soil, contains two cotton-presses. A few palampores and chintzes are made; a cattle fair takes place in connexion with the annual car festival; and the Government pony shows to encourage pony-breeding were until recently held here.

Tiruppuvanam.—*Zamīndāri tahsīl*, forming a portion of the Sivaganga Estate, in the Rāmnād subdivision of Madura District, Madras. The population in 1901 was 29,261, compared with 29,878 in 1891. It contains 66 villages, the chief of which is Tiruppuvanam, a station on the South Indian Railway and the head-quarters. The *tahsīl* lies along the bank of the Vaigai river, which supplies many of its irrigation tanks. The soil is mainly alluvial.

Tirūr.—Village in the Ponnāni *tāluk* of Malabar District, Madras, situated in 10° 53′ N. and 75° 56′ E. Population (1901), 4,444. It is a railway station and an important point on the canals of the District. Not far off is the village of Betat Pudiyangādi, which is the head-quarters of a sub-magistrate and a District Munsif. Their courts were built from the materials of the palace of the Betatnād Rājās destroyed by Tipū Sultān in 1784.

Tirūrangādi.—Town in the Ernād *tāluk* of Malabar District, Madras, situated in 11° 2′ N. and 75° 56′ E. Population (1901), 5,400. It is the head-quarters of a deputy-*tahsīldār* and a sub-magistrate, and has a weekly market. The place contains the tomb

of Taramel Tangal, a noted Māppilla saint. In 1852 Saiyid Fazl, a descendant of the Tangal, was deported to Arabia for instigating the Māppillas to rebel. The trade is in fish, coco-nuts, and areca-nuts.

Tirushivaperūr.—Town in Cochin State, Madras. *See* TRICHŪR.

Tiruttani Tahsīl.—*Zamīndāri tahsīl* in North Arcot District, Madras, consisting of the southern half of the Kārvetnagar *zamīndāri*. Area, 401 square miles; population in 1901, 171,005, compared with 173,151 in 1891; number of villages, 327; head-quarters, TIRUTTANI.

Tiruttani Village.—Head-quarters of the *zamīndāri tahsīl* of the same name in the Kārvetnagar *zamīndāri* in North Arcot District, Madras, situated in 13° 11′ N. and 79° 37′ E., with a station on the Madras Railway. Population (1901), 3,697. A hill temple, dedicated to Subrahmanyaswāmi, one of the sons of Siva, is largely frequented by pilgrims, and is held to be next in importance to the famous shrine at Tirumala near Tirupati.

Tirutturaippūndi Tāluk.—Coast *tāluk* in the south-east of Tanjore District, Madras, lying between 10° 16′ and 10° 40′ N. and 79° 28′ and 79° 52′ E., with an area of 485 square miles. The population in 1901 was 182,981, compared with 179,485 in 1891. The *tāluk* contains 143 villages, besides three towns: TIRUTTURAIPPŪNDI (population, 5,400), the head-quarters; VEDĀRANNIYAM (14,138), at the north-eastern end of the great salt swamp of that name, containing a large salt factory. It is connected with Negapatam by the Vedāranniyam Canal. About 10 miles south of it is POINT CALIMERE. MUTTUPET (population, 9,099), to the south-west on the Koraiyār river, has all the advantages of a port, although it stands about 6½ miles from the mouth of the river. The demand for land revenue and cesses in 1903–4 amounted to Rs. 5,09,000. Part of the *tāluk* is in the Cauvery delta, but it contains no alluvial soil and the land is generally of an inferior kind. Half of the 'dry' fields are assessed at Rs. 1–4 an acre or less, and the *tāluk* is a poor tract compared with most of the others in this District. Education is also backward and the population is sparse. Tobacco and coco-nuts are largely grown, and the latter, and also rice, are exported in considerable quantities.

Tirutturaippūndi Town.—Head-quarters of the *tāluk* of the same name in Tanjore District, Madras, situated in 10° 32′ N. and 79° 38′ E., on the Mulliyār river, with a station on the District board railway. Population (1901), 5,400. There is an old Siva temple, containing a number of inscriptions.

Tiruvadamarudūr (or Madhyārjunam).—Town in the Kumbakonam *tāluk* of Tanjore District, Madras, situated in 11° N. and 79° 27′ E., on the Vīrasolanār river, with a station on the main line

of the South Indian Railway. Population (1901), 11,237. It contains a very old well-sculptured Siva temple, which is of considerable size and has a fine *gopuram* or tower. In this are a large number of Chola inscriptions and two grants of the Vijayanagar dynasty. The family of Amar Singh, who was deposed from the throne of Tanjore in 1798, resides here. It is the head-quarters of a deputy-*tahsīldār*.

Tiruvādānai.—*Zamīndāri tahsīl* forming part of the Rāmnād Estate, and lying in the northern portion of the Rāmnād subdivision of Madura District, Madras. The population in 1901 was 155,346, compared with 151,472 in 1891. It contains one town, DEVAKOTTAI (population, 9,503), and 809 villages. The head-quarters are at Tiruvādānai, where a deputy-*tahsīldār* is stationed. The *tahsīl* reproduces the general features of the Rāmnād subdivision, being a level plain undiversified by hills, forests, or rivers. The sources of irrigation are rain-fed tanks. The population mainly consists of Kallans, Maravans, and Agamudaiyans; but the most influential class are the Nāttukottai Chettis, who live chiefly in Devakottai and the neighbouring villages and carry on a widespread business in money-lending. Muhammadans are found in large numbers on the sea-coast near Tondi, a seaport possessing a considerable import trade in teak and other timber from Burma and Ceylon and exporting sheep and rice to Ceylon. The only religious centres are the temples of Tiruvādānai and Kandanūr, and the sole object of antiquarian interest is a ruined Jain temple at Hanumantakudi.

Tiruvādi.—Town in the District and *tāluk* of Tanjore, Madras, situated in 10° 53′ N. and 79° 6′ E., 6 miles north of Tanjore city. Population (1901), 7,821. It was the head-quarters of a separate *tāluk* of the same name until 1860. A deputy-*tahsīldār* and a District Munsif are now stationed here. It is also called Tiruvaiyār (in Sanskrit *Panchanadam*), or 'the holy five rivers,' from the fact that the Coleroon, the Cauvery, the Kodamurutti, the Vettār, and the Vennār all run in nearly parallel courses within a distance of six miles from it. It is for this reason considered a particularly sacred place, and is one of the chief centres of Brāhmanism in the District. From the southern bank of the Cauvery its temples give it almost the appearance of a miniature Benares. Of a group of seven shrines locally known as Saptasthalam, that at Tiruvādi is the principal. During the great annual festival the gods from the other temples are brought to visit the deity in this. The concourse of pilgrims on this occasion is exceedingly large. There are many old inscriptions in the temple, more than forty of which have been transcribed by the Government Epigraphist. All but four of these are of Chola origin; two belong to the Vijayanagar, one to the Pāndya, and one to the little-known Udaiyār dynasty. Tiruvādi contains a Sanskrit high school,

under the management of the Tanjore *tāluk* board, with 100 boarders; and also a Vedic school and an English high school, both of which are maintained by native gentlemen.

Tiruvallam.—Village and shrine in the Neyyāttinkara *tāluk* of Travancore State, Madras, situated in 8° 21′ N. and 77° 5′ E., 3 miles south of Trivandrum. Population (1901), 4,164. Its temple, dedicated to Vishnu, is of great sanctity and antiquity. Ananta Padmanābha, the tutelary deity of the Travancore royal house, is said to be resting with his head on this shrine, his body at Trivandrum, and his feet at Trippapūr.

Tiruvallūr Subdivision.—Subdivision of Chingleput District, Madras, consisting of the TIRUVALLŪR and PONNERI *tāluks*.

Tiruvallūr Tāluk.—North-western *tāluk* of Chingleput District, Madras, lying between 13° 3′ and 13° 47′ N. and 79° 44′ and 80° 7′ E., with an area of 744 square miles. The population in 1901 was 253,973, compared with 236,939 in 1891. This is the most sparsely peopled *tāluk* in the District, the density being 341 persons per square mile. It contains one town, TIRUVALLŪR (population, 9,092), the head-quarters; and 464 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 4,32,000. The soil of Tiruvallūr is generally either a sandy or a red ferruginous loam, neither of which is fertile. The annual rainfall averages 41 inches, the lowest in the District. The country is mostly flat and uninteresting; but in its north-western corner two ranges, known as the Nāgalāpuram and Satyavedu hills, relieve the monotony of the plain and furnish some hill scenery. Kambākkam Drug, the highest point among them, is 2,548 feet above sea-level. The Korttalaiyār, the Araniya Nadī or Arani river, and the Cooum irrigate the *tāluk*.

Tiruvallūr Town.—Head-quarters of the *tāluk* of the same name in Chingleput District, Madras, situated in 13° 8′ N. and 79° 55′ E. Population (1901), 9,092. The station on the Madras Railway of the same name is 3 miles away. The importance of the place is due to its being the head-quarters of the Ahobilam *math*, or religious house, the head of which is the high-priest of the Vadagalai section of Vaishnav Hindus. The town contains four temples, one dedicated to Siva and the other three to Vishnu. The Siva temple is enclosed in a court 940 feet by 701 feet, in the outer walls of which are five *gopurams* or towers of the usual Dravidian pattern. It is evidently much older than the other buildings in this court, which include the usual many-pillared hall (unfinished) and several large porches. As a work of architecture it possesses the faults common to many Dravidian temples. Fergusson says that 'the gateways, irregularly spaced in a great blank wall, lose half their dignity from their positions; and the bathos of their decreasing in size and elaboration as they approach

the sanctuary is a mistake which nothing can redeem.' The place where the temple is situated is declared by local tradition to have been a forest called Vikshāranya. In this the five Pāndavas once experienced great want of water, and, almost despairing of finding any, they at last came to the spot where the shrine is now situated, and here they saw an emblem of Siva. They prayed to the god, and by his favour a small spring welled up in front of the emblem, from which the Pāndavas quenched their thirst. The Vaishnav temple, dedicated to Srī Vīrarāghavaswāmi, attracts large crowds on the days of the new moon. On these occasions a plunge in the waters of the holy tank is supposed to wipe away all sin. Thousands of pounds of molasses are poured by the pilgrims into this tank in fulfilment of their vows. The temple is under the management of the Ahobilam *math*.

Tiruvālūr.—Town in the Negapatam *tāluk* of Tanjore District, Madras, situated in 10° 46′ N. and 79° 39′ E., at the junction of the Tanjore-Negapatam branch of the South Indian Railway with the District board railway. Population (1901), 15,436. Until 1860 it was the head-quarters of a separate *tāluk*. At present a deputy-*tahsīldār* and a District Munsif are stationed here. A European firm owns a rice-mill in the town, and a flourishing high school is maintained by the *tāluk* board. There is also a richly-endowed temple, which is largely attended by pilgrims during the annual festival in the hot season, the sacred car being the largest in the District. The temple is picturesquely situated on the eastern bank of a large square tank, which has fine flights of stone steps leading down to the water and a small island-temple in its centre. The shrine of Achaleswara contains inscriptions of the Chola kings Rājārājā and Rājendra, as well as some records of the later rulers of this dynasty, and of the Pāndyas.

Tiruvankod (*Tiruvidāmkodu*).—Village in the Eraniel *tāluk* of Travancore State, Madras, situated in 8° 15′ N. and 77° 18° E. Population (1901), 1,839. It is an ancient capital of Travancore and the place from which the State takes its name.

Tiruvannāmalai Tāluk.—North-western *tāluk* of South Arcot District, Madras, lying between 11° 58′ and 12° 35′ N. and 78° 38′ and 79° 17′ E. In the west a spur of the Javādi Hills of North Arcot, locally known as the Tenmalais ('south hills'), runs down into it; and in the south it includes the corner of the Kalrāyan Hills round about Chekkadi, which is sometimes called the Chekkadi hills. Both these ranges are malarious. They are inhabited by Malaiyālis, a body of Tamils who at some remote period settled upon them and now differ considerably from their fellows in the plains in their ways and customs. On them are large blocks of 'reserved' forest in which grow sandal-wood, teak, and a few other timber trees, forming the most important of the Reserves in the District. Tiruvannāmalai is

the largest *tāluk* in South Arcot, its area being 1,009 square miles, and its population, which numbered 244,085 in 1901, compared with 205,403 in 1891, increased during that decade by 18.8 per cent., showing a higher rate of growth than any other. It is still, however, the most sparsely peopled in the District, the density being only 242 persons per square mile, compared with the District average of 450. It contains 400 villages and one town, the municipality of TIRUVANNĀMALAI (population, 17,069), the head-quarters. The rainfall is the lightest in South Arcot, being 36 inches annually, compared with the District average of 43 inches; and the *tāluk* is more liable to scarcity than its neighbours. The demand for land revenue and cesses in 1903-4 amounted to Rs. 4,32,000.

Tiruvannāmalai Town.—Head-quarters of the *tāluk* of the same name in South Arcot District, Madras, situated in 12° 14′ N. and 79° 4′ E., with a station on the Villupuram-Dharmavaram branch of the South Indian Railway. The population in 1901 was 17,069, of whom 14,981 were Hindus, 1,932 Musalmāns, and the rest Christians. Roads diverge in four directions, and it is an entrepôt of trade between South Arcot and the country to the west. The name means 'holy fire hill,' and is derived from the isolated peak at the back of the town, 2,668 feet above the sea, which is a conspicuous object for many miles around. The story runs that Siva and Pārvatī his wife were walking one evening in the flower garden of Kailāsa, when Pārvatī playfully put her hands over Siva's eyes. Instantly the whole world became darkened and the sun and moon ceased to give light; and though to Siva and his wife it seemed only a moment, yet to the unfortunate dwellers in the world the period of darkness lasted for years. They petitioned Siva for relief, and to punish Pārvatī for her thoughtlessness he ordered her to do penance at various holy places. Tiruvannāmalai was one of these, and when she had performed her penance here Siva appeared as a flame of fire at the top of the hill as a sign that she was forgiven. A large and beautifully sculptured temple stands at the foot of the hill, and at a festival in the month of Kārtigai (November-December) the priests light a huge beacon at the top of the hill in memory of the story. This festival is one of the chief cattle fairs in the District. The hill and the temple, commanding the Chengam pass into Salem, played an important part in the Wars of the Carnatic. Between 1753 and 1790 they were subject to repeated attacks and captures. From 1760 the place was a British post, and Colonel Smith fell back upon it in 1767 as he retired through the Chengam pass before Haidar Alī and the Nizām. Here he held out till reinforced, when he signally defeated the allies. In 1790, after being repulsed from Tyāga Durgam, Tipū attacked the town and captured it. Tiruvannāmalai was constituted a municipality in 1896.

The receipts and expenditure up to 1902–3 averaged Rs. 18,800 and Rs. 18,500 respectively. In 1903–4 the income, most of which was derived from tolls and the house and land taxes, was Rs. 20,800; and the expenditure was Rs. 19,100. The municipal area covers 11 square miles. One of the chief reasons for bringing it under sanitary control was that cholera used frequently to break out at the annual festival and be carried by the fleeing pilgrims far and wide through the District. The great want of the place is a proper water-supply, and experiments are in course of initiation.

Tiruvottiyūr.—Town in the Saidapet *tāluk* of Chingleput District, Madras, situated in 13° 10′ N. and 80° 18′ E., 6 miles north of Fort St. George. The population in 1901 was 15,919, but this figure was greatly enhanced by the fact that a festival was proceeding at the time of enumeration. In it is an ancient Siva temple, containing inscriptions inside and outside the shrine in Grantha characters. It attracts large crowds of people from Madras city and other places every Friday, and during the Brahmotsavam feast in the month of Māsi (February). The place has a bad name for malaria.

Tiruvūr Tahsīl.—*Zamīndāri tahsīl* in Kistna District, Madras, lying between 16° 50′ and 17° 9′ N. and 80° 32′ and 80° 52′ E., with an area of 338 square miles. The population in 1901 was 69,219, compared with 61,118 in 1891. Besides Tiruvūr, the head-quarters, there are 88 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 36,000. The *tahsīl* is an inaccessible part of the District, and means of communication are few. The whole of it is composed of *zamīndāri* estates. The cultivation is mainly 'dry,' a little irrigation being afforded by a few small tanks.

Tirwā Tahsīl.—Southern *tahsīl* of Farrukhābād District, United Provinces, comprising the *parganas* of Tirwā, Saurikh, Sakatpur, and Sahrāwā, and lying between 26° 46′ and 27° 5′ N. and 79° 19′ and 79° 58′ E., with an area of 380 square miles. It is bounded on the north by the Isan, and the Arind and Pāndū rivers form part of its southern boundary. Population increased from 168,673 in 1891 to 180,086 in 1901. There are 256 villages and two towns, the larger being Tirwā (population, 5,763), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 2,53,000, and for cesses Rs. 45,000. The density of population, 474 persons per square mile, is below the District average. The *tahsīl* consists of a central tableland of fertile loam, through the centre of which passes the Cawnpore branch of the Lower Ganges Canal, flanked by sandy tracts sloping down to the rivers north and south. In the north are found numerous swamps and small lakes, but drainage operations have improved this area considerably. Rice is grown more extensively in this *tahsīl* than elsewhere in the District. In 1903–4 the area

under cultivation was 197 square miles, of which 101 were irrigated, canals and wells serving an equal area; tanks and small streams supply 7 or 8 square miles.

Tirwā Town.—Head-quarters of the *tahsīl* of the same name in Farrukhābād District, United Provinces, situated in 26° 58′ N. and 79° 48′ E., 25 miles south-east of Fatehgarh. Population (1901), 5,763. The town is in two portions, three-quarters of a mile apart, Tirwā proper being the agricultural, and Ganj Tirwā the business and official quarter. The former contains a fine castle, the residence of the Rājā of Tirwā, who has a large estate in the neighbourhood. Attached to the fort are a handsome tank and temple constructed by a former Rājā. Ganj Tirwā is administered under Act XX of 1856, with an income of about Rs. 900. It has a flourishing local trade, and contains the *tahsīli* and a dispensary. Two schools are attended by 152 pupils.

Tīsta.—River of Bengal and Eastern Bengal and Assam. It rises in the Chatāmu Lake, Tibet, in 28° 2′ N. and 88° 44′ E., though it is said to have another source below Kinchinjunga, in Sikkim, and, after traversing North Bengal in a generally south-east direction, falls into the Brahmaputra in Rangpur District, in 25° 24′ N. and 89° 42′ E. Its length within British territory is about 168 miles. The Sanskrit names for the Tīsta are *Trishnā* and *Trisrota*, the former implying 'thirst,' and the latter 'three springs.' The Kālika Purāna gives the following account of its origin: The goddess Pārvatī, wife of Siva, was fighting with a demon (Asur), whose crime was that he would worship her husband and not herself. The monster, becoming thirsty during the combat, prayed to his patron deity for drink; and in consequence Siva caused the river Tīsta to flow from the breast of the goddess in three streams, and thus it has ever since continued to flow.

After draining Sikkim, the Tīsta forms the boundary between that State and Darjeeling District for some distance, till it receives the waters of the Great Rangīt, when it turns to the south, and, threading its way through the mountains of Darjeeling District, debouches on the plains through a gorge known as the Sivok Golā Pass. In Darjeeling the principal tributaries of the Tīsta are: on its left bank, the Rangpo and the Rillī; and on its right, the Great Rangīt, the Rangjo, the Rayeng, and the Sivok. The Tīsta in this portion of its course is a deep mountain torrent not fordable at any time of the year. In the dry season its waters are sea-green, but after rain the admixture of calcareous detritus gives them a milky hue. The scenery along the river banks is here grand and beautiful. The lower slopes of the mountains are clothed with dense forest overhanging its waters, which now gurgle in their rocky bed and anon form deep still pools, while in the background rise in tier above tier the great snowy masses

of the Himālayas. The Tīsta is not navigable by trading boats in its course through the hills, although canoes, roughly cut from the *sāl* timber on its banks, have been taken down the river from a point some 8 miles above the plains. Where it enters the plains it has a width of 700 or 800 yards, and becomes navigable by boats of 2 tons burden; but for some distance navigation is very difficult and precarious, owing to the rapids and the numerous rocks and boulders in the bed of the river.

After a short course through the Darjeeling *tarai* the Tīsta passes into Jalpaigurī District at its north-western corner, and, flowing in a south-easterly direction, forms the boundary between the Western Duārs and the permanently settled portion of the District. Here its principal tributaries, all on the left or east bank of the river, are the Lisu or Lish, the Ghish, and the Sāldānga. The Tīsta then traverses a small portion of the western extremity of the Cooch Behār State, and flows across Rangpur District to join the Brahmaputra. In this District it receives numerous small tributary streams from the north-west and throws off many offshoots of more or less importance, the largest being the Ghāghāt, which probably marks an old bed of the main river. Another branch is the Manās, which rejoins the parent stream after a winding course of about 25 miles. In the lower part of its course the Tīsta has a fine channel, from 600 to 800 yards wide, with a large volume of water at all times of the year and a rapid current. Although it is capable of floating large trading boats between 3 and 4 tons burden at all seasons, navigation becomes difficult in the cold season, owing to the shoals and quicksands which form at its junction with the Brahmaputra, and the small islands and sandbanks thrown up by the current. The lower reaches, from Kāpāsia to Nalganj Hāt, are called the Pāgla ('mad') river, owing to the frequent and violent changes in its course. Old channels abound, such as the Chotā ('small'), Burhī ('old'), and Marā ('dead') Tīsta, each of which must at one time have formed the main channel of the river, but which are now deserted and only navigable in the rains.

At the time of Major Rennell's survey (towards the close of the eighteenth century) the main stream of the Tīsta flowed south down the bed of the KARATOYĀ, instead of south-east as at present, and, joining the Atrai in Dinājpur, finally fell into the Ganges. But in the destructive floods of 1787, which form an epoch in the history of Rangpur, the main stream swelled by incessant rains suddenly forsook its channel and forced its way into the Ghāghāt. This latter stream was unable to carry off such a vast accession to its waters; and the Tīsta spread itself over the District, causing widespread destruction to life and property, till it succeeded in cutting for itself

a new and capacious channel by which it found its way to the Brahmaputra. In the early part of the nineteenth century the river again altered its course, forsaking a westward loop about 40 miles in length for a more direct course eastwards. It has since adhered to the course then formed, but with numerous encroachments on its banks, which have left in the west of Rangpur District a maze of old watercourses and stagnant marshes. These render it almost impossible to trace the former course of these rivers, and have caused at the same time great confusion in their nomenclature. In parts of its course the Karatoyā is known as the Burhī ('old') Tīsta, and its broad sandy channel in many places indicates the route followed by the Tīsta according to Major Rennell's survey.

Titāgarh.—Town in the Barrackpore subdivision of the Twenty-four Parganas District, Bengal, situated in 22° 45′ N. and 88° 22′ E., on the left bank of the Hooghly river, with a station on the Eastern Bengal State Railway. Population (1901), 16,065, of whom 11,461 are males. Titāgarh was at one time a fashionable place of residence for Europeans, but it is now a busy commercial town containing four jute-mills and a paper-mill. It was formerly included within the South Barrackpore municipality, but in 1895 it was constituted a separate municipality. The income during the nine years since the separation has averaged Rs. 19,000, and the expenditure Rs. 16,000. In 1903–4 the income was Rs. 40,000, including a loan of Rs. 13,000 from Government, Rs. 11,000 derived from a tax on houses and lands, and Rs. 12,000 realized from a conservancy rate; the expenditure was Rs. 25,000.

Toba-Kākar Range.—Mountain range (from 30° 22′ to 32° 4′ N. and from 66° 23′ to 69° 52′ E.) in the Zhob and Quetta-Pishīn Districts of Baluchistān, which forms the boundary between Baluchistān and Afghānistān, and at the same time the watershed between India and Central Asia. It is an offshoot of the Safed Koh, with three parallel ridges gradually ascending in a south-westerly direction from a height of about 5,000 feet near the Gomal to the peaks of Sakīr (10,125 feet), Kand (10,788 feet), and Nigānd (9,438 feet) in the centre. Thence it descends towards the west and, opposite Chaman, takes a sharp turn to the south-west, continuing under the name of the Khwāja Amrān and Sarlath. Eventually it merges into the Central Makrān Range, after a total length of about 300 miles. The country between the Gomal and the Kand peak, which is drained by the Kundar and Zhob rivers, is known from its inhabitants as Kākar Khorāsān. The part to the westward of the Kand peak is called Toba, and is inhabited chiefly by Achakzai Afghāns. The range has never been entirely surveyed. The higher elevations consist of wide plateaux, intersected on either side by deep river valleys. In winter the cold on these

wind-swept plains is intense. They are covered thickly with the small bushy plant called southernwood (*Artemisia*). Little timber is to be seen. Bosomed in the Kand mountain is one of the most picturesque glens in Baluchistān, called Kamchughai. Across the Khwāja Amrān offshoot lies the Khojak Pass. Another important pass in the Khwāja Amrān is the Ghwazha. The most interesting feature of the geology of the range is the continuation of the Great Boundary Fault of the Himālayas which runs along it. The upper strata consist of flysch, known to geologists as Khojak shales, beneath which lies a conglomerated mass of shaly bands and massive limestone. Intrusions of serpentine, containing chrome ore and asbestos, also occur.

Toba Tek Singh.—*Tahsīl* of the new Lyallpur District, Punjab, lying between 30° 50′ and 31° 23′ N. and 72° 20′ and 72° 54′ E., with an area of 865 square miles. The population in 1906 was 148,984. It contains 342 villages, including Toba Tek Singh (population, 1,874), the head-quarters, and GOJRA (2,589), an important grain market on the Wazīrābād-Khānewāl branch of the North-Western Railway. The land revenue and cesses in 1905–6 amounted to 4·7 lakhs. The *tahsīl* consists of a level plain, wholly irrigated by the Chenāb Canal. The soil, which is very fertile in the east of the *tahsīl*, becomes sandy towards the west. The boundaries of the *tahsīl* were somewhat modified at the time of the formation of the new District of Lyallpur.

Tochi River (or Gambila).—River in the North-West Frontier Province, which rises in Afghānistān and flows through the Northern Wazīristān Agency and Bannu District. Its course through Northern Wazīristān is due east, through the valley of Upper and Lower Daur. Thence it debouches on the Bannu plain and, running south-east for most of its course, curves eastward again and falls into the Kurram, east of Lakki. It irrigates considerable areas in both Daur and Bannu District; but owing to the increase in cultivation in Daur since the British occupation of the valley in 1895, there has been a great decline in the Bannu irrigation. The total length of the river is between 100 and 150 miles.

Toda Bhim.—Head-quarters of the *tahsīl* of the same name in the Hindaun *nizāmat* of the State of Jaipur, Rājputāna, situated in 26° 55′ N. and 76° 49′ E., about 62 miles east of Jaipur city. Population (1901), 6,629. The town contains 8 schools which, in 1904, were attended by 135 boys.

Toda Todi.—Petty State in KĀTHIĀWĀR, Bombay.

Tohāna Sub-tahsīl.—Sub-*tahsīl* of the Fatahābād *tahsīl* of Hissār District, Punjab, with an area of 450 square miles. It contains 117 villages, and the land revenue and cesses in 1903–4 amounted to Rs. 86,000. TOHĀNA is the head-quarters.

Tohāna Village.—Village in the Fatahābād *tahsīl* of Hissār District, Punjab, situated in 29° 43′ N. and 75° 54′ E., 40 miles north of Hissār town. Population (1901), 5,931. It was once a city of some size and importance, founded, according to tradition, by Anang Pāl, the Tomar Rājā of Delhi. Ruined during the Chauhān supremacy, it recovered its prosperity in the early Musalmān period; but, having suffered many vicissitudes of plunder and famine, it has now sunk into an inferior position. It was the scene of a defeat of the Jāts by Tīmūr in 1398. Numerous remains in the neighbourhood testify to its former importance. Tohāna is administered as a 'notified area,' which in 1903–4 had an income of Rs. 900.

Tollygunge.—Town in the head-quarters subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 30′ N. and 88° 19′ E., 4 miles south of Calcutta. Population (1901), 12,821. Tollygunge is a southern suburb of Calcutta, with which it is connected by an electric tramway, and the northern portion of it forms part of the 'Added Area' of Calcutta. It contains a police-station and the barracks of the Twenty-four Parganas police reserve, a steeplechase course, and the grounds of the Tollygunge Club, in which golf links have been laid out. Several of the descendants of Tipū Sultān's family have their residence here. Tollygunge was included in the South Suburban municipality until 1901, when a separate municipality was constituted. The income and expenditure during the three years since the constitution of the municipality averaged Rs. 15,000. In 1903–4 the income was Rs. 18,000, half of which was obtained from a tax on houses and lands; and the expenditure was Rs. 19,500.

Tolly's Nullah.—Canal in the District of the Twenty-four Parganas, Bengal, forming part of the Calcutta and Eastern Canals system. It is 18 miles in length, and extends from Kidderpore to Tārdaha, connecting the Hooghly with the Bidyādharī river. It was originally excavated in 1776 by Major Tolly as a private venture, under a temporary grant of land and of canal tolls, and was opened for navigation in 1777; it was taken over by Government in 1804. As at first excavated, the canal was of insignificant dimensions; but it has since been widened, and is now a much-frequented passage (forming part of the inner Sundarbans route), and a source of considerable revenue to Government. The original course of the Hooghly was identical with the present Tolly's Nullah as far as Gariyā, 8 miles south of Calcutta, and this part of the canal is still called Adi Gangā, or the 'original' Ganges.

Tongsa.—Village in the State of Bhutān, situated in 27° 30′ N. and 90° 28′ E. Tongsa is the head-quarters of the Tongsa Penlop, the governor of Eastern Bhutān.

Tonk State.—Native State, situated partly in Rājputāna and

partly in Central India, and consisting of six districts separated from each other by distances varying from 20 to 250 miles. The Rājputāna districts are TONK, ALĪGARH, and NĪMBAHERA, while those in Central India are CHHABRA, PIRĀWA, and SIRONJ. The State lies between 23° 52′ and 26° 29′ N. and 74° 13′ and 77° 57′ E., and has a total area of about 2,553 square miles, of which 1,114 are in Rājputāna and 1,439 in Central India. The characteristics of almost every district differ. Tonk and Alīgarh are flat and open, with here and there a ridge of rocky hills covered with scrub jungle. Nīmbahera is intersected by a broken range of hills, and the country to the south-west is high table-land. The Chitor hills extend to the north-eastern corner and include the highest peak of the State, 1,980 feet above the sea. The northern and central parts of Chhabra are open, while the rest of the district is hilly and well wooded. Pirāwa and Sironj are undulating, the southern portions of each being hilly and somewhat overgrown with jungle. A ridge of the Vindhyas traverses Sironj from north to south, and divides it into two distinct tracts, that to the west being about 1,800 feet above the sea. The principal rivers are the Banās and the Pārbatī. The former flows for about 30 miles through, and for another 10 miles along the border of, the Tonk district; it is fordable during the winter and summer, but in the rains becomes a swift and angry torrent, upwards of half a mile in breadth and sometimes 30 feet deep. It is said to have risen in great flood in 1875, and in its passage down to and past Tonk city to have swept away villages and buildings far above the highest water-mark. The Māshi and Sohadra join it in this district, and two other of its tributaries, the Gambhīr and the Berach, flow for short distances through Nīmbahera. The Pārbatī, which forms the eastern and northern frontiers of Chhabra, is from 80 to 200 yards broad. In the hot season it ceases to flow, but during the rains ferries ply at Chaukī, Gūgor, and other places. The Sind river rises in Sironj, but attains to no size there.

Physical aspects.

A considerable part of the Tonk district is covered by the alluvium of the Banās, and from this a few rocky hills composed of schists of the Arāvalli system protrude, together with scattered outliers of the Alwar quartzites. Nīmbahera is for the most part covered by shales, limestone, and sandstone belonging to the Lower Vindhyan group, while the Central India districts lie in the Deccan trap area, and present all the features common to that formation.

Besides the usual small game, antelope, 'ravine deer,' and *nīlgai* (*Boselaphus tragocamelus*) are common in the plains, and leopards, *sāmbar* (*Cervus unicolor*), and wild hog are found in many of the hills. An occasional tiger is met with in the south-east of Alīgarh, the north-east of Nīmbahera, and parts of Pirāwa and Sironj; and there are

a few *chital* (*Cervus axis*) in Nīmbahera and the Central India districts.

The climate of Tonk and Alīgarh is, on the whole, dry and healthy, though malarial fevers prevail during and after the rains. Hot winds blow almost continuously in April and May, but the nights are comparatively cool. The remaining districts, situated in or close to Mālwā, enjoy a good climate. The annual rainfall in the Rājputāna portion of the State averages between 25 and 26 inches, of which four-fifths are received in July and August. In the rest of the territory the fall varies from 30 inches in Chhabra to 38 in Sironj. At Tonk city the heaviest fall of rain in any one year exceeded 57 inches in 1887, and the lightest was about 10 inches in 1899.

History.

The ruling family are Pathāns or Afghāns of the Buner tribe. In the reign of Muhammad Shāh, one Tāleh Khān left his home in the Buner country and took service in Rohilkhand with Alī Muhammad Khān, a Rohilla of distinction. His son, Haiyāt Khān, became possessed of some landed property in Morādābād, and to him in 1768 was born Amīr Khān, the founder of this State. Beginning life as a petty mercenary leader, he rose in 1798 to be the commander of a large army in the service of Jaswant Rao Holkar, and was employed in the campaigns against Sindhia, the Peshwā, and the British, and in assisting to levy the contributions exacted from Rājputāna and Mālwā. It was one of the terms of the union between Amīr Khān and Holkar that they should share equally in all future plunder and conquest, and accordingly in 1798 Amīr Khān received the district of Sironj. To this Tonk and Pirāwa were added in 1806, Nīmbahera in 1809, and Chhabra in 1816. On the entrance of the British into Mālwā, Amīr Khān made overtures to be admitted to protection; but the conditions he proposed were too extravagant to be acceded to. He received, however, the offer of a guarantee of all the lands he held under grants from Holkar, on condition of his abandoning the predatory system, disbanding his army of fifty-two battalions of disciplined infantry and a numerous body of Pathān cavalry, and surrendering his artillery, with the exception of forty guns, to the British at a valuation. His request to be confirmed in lands obtained from different Rājput States under every circumstance of violence and extortion was positively rejected. To these terms Amīr Khān agreed, and they were embodied in a treaty in November, 1817. To the territories thus guaranteed (the five districts above mentioned) the fort and *pargana* of Rāmpura, now called Alīgarh, were added by the British Government as a free grant, and a loan of 3 lakhs, afterwards converted into a gift, was made to him. Nawāb Amīr Khān died in 1834 and was succeeded by his son, Wazīr Muhammad Khān, who, during the Mutiny, repulsed with

comparatively few men an attack made on the Tonk fort by the combined forces of the Nawāb of Bāndā and Tāntiā Topī. For these services, his salute was raised from 15 to 17 guns; and in 1862 he received a *sanad* guaranteeing the succession to his family according to Muhammadan law, in the event of the failure of natural heirs. He died in 1864. His son and successor, Muhammad Alī Khān, was unpopular with his subjects. He forbade the building of Hindu temples, or even repairs to existing ones, and in his overpowering desire to increase the revenue he resorted to every means of wringing money from *jāgīrdārs* and cultivators. In consequence of his abetment of a treacherous attack on the uncle and followers of his tributary, the Thākur of LĀWA, he was deposed in 1867 by the British Government, and placed under surveillance at Benares, where he died in 1895. As a further mark of the displeasure of Government, the salute of the ruler of Tonk was reduced to 11 guns. The former salute of 17 guns was regranted to the present chief in 1877 for his life only, but was permanently restored to the State in 1878. Muhammad Alī Khān was succeeded in 1867 by his son, Muhammad Ibrāhīm Alī Khān, the present Nawāb. For about two years the State was administered by a Council of Regency, controlled by a resident British officer, but the Nawāb was entrusted with the management in 1870. The important events of the present rule have been the famines of 1868-9 and 1899-1900; the revenue survey and settlement; the construction of the railway in the Chhabra district; and the establishment of regular courts of justice, schools, hospitals, and dispensaries. His Highness was created a G.C.I.E. in 1890.

Population.

The number of towns and villages in the State is 1,294, and the population at each of the three enumerations was: (1881) 338,029, (1891) 380,069, and (1901) 273,201. The decrease of about 28 per cent. since 1891 is ascribed to the famines and scarcities of the decade, notably the famine of 1899-1900, which was followed by a disastrous type of fever. The State contains one city, from which it takes its name, and four towns. The table on the next page gives the chief statistics of population in 1901.

In 1901 Hindus numbered 225,432, or more than 82 per cent. of the total; Musalmāns, 41,090, or 15 per cent.; and Jains, 6,623. More than 99 per cent. of the Musalmāns belong to the Sunni sect. The languages mainly spoken in the Rājputāna *parganas* are Hindī, Mewārī, and Urdū, and in the Central India districts Mālwī.

The principal castes are: Chamārs, who number 29,600, or more than 10 per cent. of the total; Pathāns, 17,500, or about 6 per cent.; Brāhmans, 16,000, or nearly 6 per cent.; Mahājans, 15,000, or over 5½ per cent.; Mīnās, 14,000, or over 5 per cent.; and Gūjars, 13,000, and Shaikhs, 11,600, both between 4 and 5 per cent. The chief

occupation of the people is agriculture, more than 45 per cent. living by the land, while many others are partially agriculturists. Nearly 10 per cent. are workers in leather, horn, and bones, and about 5 per cent. are engaged in the cotton industry.

Pargana.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Alīgarh	157	...	86	17,063	− 13·0	444
Chhabra	312	1	185	36,046	− 22·4	518
Nīmbahera	383	1	197	40,499	− 37·7	1,133
Pirāwa	248	1	126	25,286	− 38·0	505
Sironj	879	1	436	68,539	− 26·9	583
Tonk	574	1	259	85,768	− 24·9	3,174
State total	2,553	5	1,289	273,201	− 28·1	6,357

Agriculture.

The various districts resemble each other to this extent, that all are, speaking generally, favoured with good soil and water. The soils of the State may be broadly divided into: (1) the dark series, of which there are two varieties, the black friable soil known as *kālī* in the Rājputāna districts, *māl* in Chhabra, *khāndan* in Pirāwa, and *mār* in Sironj, and a soil somewhat lighter in colour and less fertile than *kālī*, and generally classed as *dhāmni*; (2) the soils known as *bhūri* and *pīli*, and in Sironj as *parwā*; and (3) the inferior and stony soils, the more common varieties being *barra*, *pathār*, *rātri*, *barli*, and in Sironj *rākar*. Nīmbahera and Pirāwa are famous for rich black soil peculiarly adapted for poppy cultivation, and Sironj in point of soil can bear comparison with either of them.

Agricultural statistics are available only for the *khālsa* lands, paying revenue direct to the State, which cover an area of 1,786 square miles, or 69 per cent. of the total area. The cultivable area is 1,439 square miles, of which 506 square miles, or about 35 per cent., were cultivated in 1903-4. The percentages varied from 21 in Sironj and 35 in Pirāwa to 54 in Tonk and 59 in Alīgarh.

Of the total cropped area, *jowār* occupied about 36 per cent., wheat 21, gram 10, maize 7, *til* 5, cotton 4½, and poppy nearly 3 per cent. Two-fifths of the area under wheat was in Sironj, and the cultivation of the poppy is practically confined to Chhabra, Nīmbahera, and Pirāwa.

The indigenous cattle of the Rājputāna districts are of an inferior type, and all the best animals are imported; those of the Central India districts are, however, of a better class. Goats and sheep of the ordinary breed are reared in considerable numbers.

Of the total *khālsa* area cultivated, 40 square miles, or about 8 per cent., were irrigated. Irrigation is almost entirely from wells, the water

being lifted by means of the *charas* or leathern bucket. The average area irrigated from tanks is only 740 acres, almost entirely confined to the Tonk district.

The area under forests is about 106 square miles, but much of this, especially in the Rājputāna districts, consists of scrub jungle and grass reserves. In Chhabra and Sironj teak and ebony are found, and there are some sandal-wood trees in Pirāwa; but the forests are not scientifically treated. Till recently the forest revenue, derived mainly from grazing fees and the sale of minor produce, averaged about Rs. 4,000 and the expenditure Rs. 2,000; but the subject of forest conservancy has since received more attention, and the receipts and expenditure are now about Rs. 16,500 and Rs. 11,500 respectively.

Trade and communications.

The iron mines at Amli in Alīgarh, near Dūngla in Nīmbahera, and at Latehri in Sironj are said to have been worked formerly, but they did not pay expenses, and have been closed since about 1850. The sandstone quarries in the Tonk and Nīmbahera districts yield slabs excellent for building purposes.

Good cotton cloth is woven throughout the State, the best kinds being produced in Tonk and Sironj. Felt rugs and saddle-cloths are made in Tonk; plaited utensils of daily use in Nīmbahera; and guitars and pen-cases carved in wood and inlaid with ivory in the Central India districts. A cotton-press and ginning factory at Nīmbahera town is the property of a banker of Jaora.

The chief exports are cereals, cotton, opium, hides, and cotton cloth; and the chief imports are salt, sugar, rice, English piece-goods, tobacco, and iron. The trade of Tonk and Alīgarh is mostly with Jaipur city by road, and thence by rail to Agra, Bombay, Calcutta, Cawnpore, &c. The exports of the Central India districts go to Bhopāl, Gwalior, Indore, Jhānsi, and Ujjain.

The Rājputāna-Mālwā Railway (Ajmer-Khandwā branch) runs for about 16 miles through a portion of the Nīmbahera district; this section was opened for traffic in 1881, and has one station (at the head-quarters town) in Tonk territory. The only other railway in the State is that known as the Bīna-Bāran, which runs for about 22½ miles through the Chhabra district. This section was built by the Darbār at a cost of about 14·7 lakhs, was opened for traffic in 1899, and has recently been sold to the Gwalior State. The net earnings have averaged about Rs. 19,000 a year, or about 1¼ per cent. on the capital outlay.

The total length of metalled roads is 48 miles and of unmetalled roads 47 miles. Of the former, the most important is that connecting the cities of Tonk and Jaipur. Its length in Tonk territory is 13 miles, and it was completed in 1877 at a cost of about Rs. 50,000. Of un-

metalled roads about 38 miles in the Nīmbahera district, between Nasīrābād and Nīmach, and Nīmbahera and Udaipur, were constructed by the British Government about 1870; but these roads have been largely superseded by the railway, and are now merely fair-weather communications.

There are six British post offices in the State, one at the headquarters of each district, and four telegraph offices.

Famine.

The Rājputāna districts, especially Tonk and Alīgarh, are somewhat liable to famines and scarcities. In 1868 in Tonk and Alīgarh the monsoon did not set in till the middle of July, and ceased altogether at the end of that month. The *kharīf* crops perished; there was scarcity of grass and water, and 70 per cent. of the cattle are said to have died. In December, 1868, wheat was selling at 7½ and other grains at 8 seers per rupee. Relief works and a poorhouse were opened and helped in some degree to alleviate distress; but deaths from positive starvation were lamentably numerous. The direct expenditure appears to have been nearly 2 lakhs, and remissions of land revenue amounted to a similar sum. In 1896 the *kharīf* crops of the Rājputāna districts suffered from want of rain, and there was a certain amount of suffering. About 4,700 persons were relieved daily on works or in poorhouses for a period of eight months (February to September, 1897). In the great famine of 1899–1900 the Rājputāna districts were severely affected, while those in Central India enjoyed comparative immunity. The rains ceased in July, 1899, and grass, water, fodder, and crops all failed. Relief works were started in September and kept open for twelve months; similarly poorhouses were open from February to October, 1900. Nearly 4,000,000 units were relieved at a cost of about 3·7 lakhs. The climax was reached in June, 1900, when wheat and *jowār* were selling at less than 6 seers per rupee. The mortality among cattle was very high (50 per cent. are said to have died); and to replace them large purchases of bullocks were made in Central India with money granted from the Indian Famine Fund. Including suspensions of land revenue (about 4·2 lakhs), and loans to agriculturists (1·5 lakhs), the famine cost the State about 8½ lakhs. The more recent scarcity of 1901–2 was confined to the Rājputāna districts, and was due almost as much to the ravages of rats as to deficient rainfall. The distress was nowhere very great, and there was no need of gratuitous relief.

Administration.

The administration is ordinarily carried on by the Nawāb, assisted by a minister and a Council; but the post of minister, creditably held for many years by the late Sāhibzāda Sir Muhammad Obaidullah Khān, K.C.I.E., C.S.I., was abolished in 1903, and the Council now consists of four members. Under recent orders, the Political Agent, with the help of this Council, takes an

active part in the guidance of the administration and the finances (subject to the control of the Governor-General's Agent in Rājputāna), a step necessitated by the indebtedness of the State. A *nāzim* is in charge of each *pargana*, who is assisted by two *peshkārs*, except in Aligarh, where there is only one, and other officials.

The courts are guided generally by the Codes of British India. Except in the Tonk and Aligarh districts, the *nāzims* have no civil powers, and suits not exceeding Rs. 2,000 in value are decided by one of the *peshkārs*. Suits beyond their powers are transferred to the Civil Court (*Nāzim dīwānī*) at the capital, which, with the assistance of a *naib-nāzim*, disposes of all the civil business of the Tonk district as well as the more important suits from Aligarh. Criminal cases are heard by *nāzims* and *peshkārs*; the powers of these officials vary, but speaking generally the former are second-class and the latter third-class magistrates. In Sironj the *nāzim* is a first-class magistrate, while at the capital the Chief Magistrate (*Nāzim faujdāri*) has enhanced powers, and deals not only with the cases occurring in Tonk, but also with the more important ones of other districts. Over the Civil Court and Chief Magistrate at the capital is the Appellate Court; it tries all cases, civil or criminal, beyond their respective powers, and appeals against its decisions lie to the Council and the Nawāb. The latter alone can pass death sentences.

The normal revenue of the State is at the present time about 11 lakhs, and the ordinary expenditure a little over 9 lakhs. The chief sources of revenue are: land (including certain taxes on artisans and payments made by those holding on privileged tenures), about 7 lakhs; customs, 1·8 lakhs; compensation under the Salt agreement of 1882, Rs. 20,000; forests, Rs. 16,500; and stamps, about Rs. 13,000. The main items of expenditure are: civil and judicial staff (including the Council, the various courts, the district officials, and the forest and customs departments), 2·5 lakhs; allowances to the Nawāb and the members of his family, 2 lakhs; army, 1·4 lakhs; police, Rs. 50,000; and public works, Rs. 45,000. The State is now in debt to the extent of about 14 lakhs; this is due partly to bad seasons and partly to maladministration. The realizable assets, including a cash balance of 2·3 lakhs, are estimated at about 11 lakhs, of which a considerable proportion represents arrears of land revenue, which can only be recovered gradually.

In the Tonk and Aligarh districts the currency is known as *Chanwar shāhi*, from the fly-whisk on the obverse. It has been coined at the Tonk mint since 1873, and consists of rupees and copper pieces. The rupee, not many years ago, exchanged for 15 British annas; in 1899 it was worth but 11, while at the present time it exchanges for between 13 and 14 annas, and the rate varies almost daily. The

currency in Sironj has, since 1862, been that known as *Muhammad khāni*, and it is about to be converted into British currency. In the remaining districts the British rupee has for many years been the sole legal tender in transactions between the Darbār and its subjects. The question of the conversion of the *Chanwar shāhi* currency is under consideration.

The land tenures of the State are *jāgīr*, *istimrāri*, *muāfi*, and *khālsa*. The estates held on the first three of these tenures cover an area of about 790 square miles, or 30 per cent. of the total area of the State. The majority of the *jāgīrdārs* are members of the ruling family; in some cases tribute is paid at $2\frac{1}{2}$ annas per rupee of income, while in the case of those not belonging to the ruling family a succession fee (*nazarāna*) is levied. As a rule, no service is rendered, though all are expected to assist the chief in case of necessity; adoption is allowed from among near relations, but is subject to the Nawāb's approval. *Istimrārdārs* hold on payment of a fixed quit-rent, and have to render service according to their means, and pay *nazarāna*. *Muāfi* lands are granted as a reward or in charity, and the holders have to pay a fixed sum yearly, called *salāna*. In the *khālsa* area the system is *ryotwāri*; the cultivator pays revenue direct to the Darbār, and so long as he does so punctually is seldom, if ever, ejected.

In former times the land revenue was collected either in cash or in kind or in both; and between the Darbār and the cultivators there was a class of speculators who farmed the revenue for a term of years, and when in difficulties reimbursed themselves at the ryots' expense. This system was abolished in 1887, when survey and settlement operations were started. Cash rates per *bigha* were introduced throughout the State, the basis of assessment being the class of soil, the relative productiveness of each class, the distance of the field from the village, &c. The first regular settlement was introduced in the various districts between 1890 and 1892 for a term of fifteen years, subsequently extended till October, 1908. This settlement was subjected to considerable criticism on the score of uneven assessment, excessive rates, &c., and was revised between 1897 and 1899. The original and revised demands were respectively 10·4 and 8·4 lakhs; and the rates per acre, as fixed at the revised settlement, vary from 3 or 4 annas to Rs. 6-8 for 'dry' land, and from Rs. 3 to Rs. 20 for 'wet' land.

The military force has been considerably reduced of late, and now numbers 1,732 of all ranks: namely, 443 cavalry, 243 artillerymen, and 1,046 infantry including the fort-garrisons. The annual cost is about 1·4 lakhs. There are 82 guns, of which 74 are said to be serviceable.

Excluding the village *chaukīdārs*, the police force consists of about 850 of all grades, or one policeman to every 3 square miles and to every 321 of the population. The force costs about Rs. 50,000 a year. Besides the Central jail at the capital, there is a subsidiary jail at the head-quarters of each district, where prisoners sentenced to six months or less are confined.

In respect of the literacy of its population, Tonk stands sixteenth among the twenty States and chiefships of Rājputāna, with 2·3 per cent. (4·4 males and 0·1 females) able to read and write. The Central India districts are backward, only about 1·2 per cent. of the population being literate. Excluding indigenous schools (*maktabs* and *pāthsālas*), which are not under State management, there are 15 educational institutions in Tonk territory, 10 for boys and 5 for girls; and they are attended by about 800 pupils, half of whom are Muhammadans. Ten of the schools, including all those for girls and the high school, are at Tonk city, and there is one school at the head-quarters of each of the other districts. In the latter, English is taught only at Nīmbahera and Sironj. The total expenditure on education is about Rs. 9,000 a year.

The State possesses 3 hospitals at the capital and 5 dispensaries, one in each of the outlying districts, with accommodation for 46 in-patients. In 1904 the number of cases treated was 33,996, of whom 617 were in-patients, and 2,595 operations were performed; and the expenditure was about Rs. 13,000.

Vaccination statistics are available only for the Rājputāna districts. In 1904–5 a staff of six men successfully vaccinated 3,167 persons, or about 22 per 1,000 of the population, compared with an annual average for the previous five years of 3,596, or 25 per 1,000. In the Central India districts vaccination is backward.

[T. C. Pears, *Settlement Report* (1893).]

Tonk District.—The second largest *pargana* of the State of Tonk, situated in the east of Rājputāna, between 25° 52′ and 26° 29′ N. and 75° 31′ and 76° 1′ E., with an area of about 574 square miles. It is bounded on every side by Jaipur territory, except on the north-west, where the small chiefship of Lāwa intervenes, and at two places in the south-west and south, where there are outlying portions of Būndi. The country is flat and open, with an occasional ridge of bare rocky hills. The principal rivers are the Banās and its tributaries, the Māshi and Sohadra. The population in 1901 was 85,768, compared with 114,298 in 1891. There are 259 villages and one town, TONK CITY (population, 38,759). The principal castes are Chamārs, Jāts, and Gūjars, forming respectively about 16, 14, and 13 per cent. of the total. According to local records, Tonk was included in the Toda or Tori district, which, about the middle of

the twelfth century, was held by one Sātujī, a Chauhān Rājput. In the reign of Akbar it was conquered by Mān Singh of Jaipur, but in 1642 one Rai Singh Sesodia got possession. In the following year a Brāhman called Bhola obtained the grant of twelve deserted villages on the *bhūm* tenure, and he built the old town of Tonk from which the district takes its name. The Hāra Rājputs appear to have held it from 1696 to 1707, when it was retaken by Sawai Jai Singh of Jaipur. Subsequently there were constant struggles for possession between Jaipur, Holkar, and Sindhia. It was seized by British troops in 1804, and shortly afterwards granted to Jaipur, but Jaswant Rao Holkar was not long in recovering it. In 1806 he gave it to Amīr Khān, and it was subsequently included in the lands guaranteed to the latter by the British Government in the treaty of 1817. Of the total area, 292 square miles are *khālsa*, paying revenue direct to the State; and the *khālsa* area available for cultivation is about 245 square miles. Of the latter, 129 square miles, or about 53 per cent., were cultivated in 1903-4, the irrigated area being 11 square miles. Of the cropped area, *jowār* occupied 39 per cent., wheat 16, gram 8, *til* 7, barley 6, *bājra* 5½, and cotton about 4 per cent. The soil is generally fertile, and is composed of a mixture of sand and black alluvium, the former predominating. The revenue from all sources is about 3·7 lakhs, of which more than 2 lakhs is derived from the land and nearly a lakh from customs.

Tonk City.—Capital of the State and head-quarters of the district of the same name, in Rājputāna, situated in 26° 10′ N. and 75° 48′ E., about 2 miles to the south of the Banās river, 60 miles by metalled road south of Jaipur city, and 36 miles north-east of the cantonment of Deoli. The old town, picturesquely situated on the slopes of a small range of hills, is surrounded by a wall and is somewhat closely packed; it is said to have been built about 1643 by a Brāhman called Bhola. The new town, which lies to the south, contains various quarters named after successive Nawābs, and is long and straggling. To the south again is the fort called Bhūmgarh, while on the east are the remains of Amīr Khān's cantonment. The population of the city was 40,726 in 1881, 45,944 in 1891, and 38,759 in 1901. In the last year Musalmāns numbered 20,571, or 53 per cent.; and Hindus 17,367, or more than 44 per cent. A municipal committee attends to the lighting and conservancy of the place. The Central jail has accommodation for 178 prisoners, and costs about Rs. 15,000 a year to maintain. There are 10 schools, attended on the average by about 370 boys and 80 girls. The only notable institution is the high school, which teaches up to the matriculation standard of the Allahābād University. It is attended by more than 200 students, of whom 82 are reading English. There are 3 hospitals,

including the small one attached to the jail, which have accommodation for 46 in-patients. The Walter Hospital, opened in 1894, is reserved for females, has 19 beds, and is under a qualified lady-doctor.

Tonnūr.—Village in the Seringapatam *tāluk* of Mysore District, Mysore, situated in 12° 33′ N. and 76° 39′ E., 10 miles north-west of Seringapatam. Population (1901), 643. The name is properly Tondanūr. It was to this place that the last of the Hoysala kings retired after the destruction of Dorasamudra by the Muhammadans in 1326. There is a Musalmān tomb of the date 1358. Close by is the Moti Tālāb or 'lake of pearls,' a splendid tank formed by the Vaishnav reformer Rāmānuja early in the twelfth century, and named by him Tirumalasāgara. Its present name was given it in 1746 by the Sūbahdār of the Deccan, who camped here while negotiating with Mysore. It was breached and the water drained off by Tipū Sultān in 1798, to prevent it being used by the British besieging Seringapatam.

Tons, Eastern (also called Chhotī Sarjū).—River draining the east of the United Provinces between the Gogra and Gumtī. It rises in the west of Fyzābād, and runs nearly parallel with the Gogra. After entering Azamgarh it flows with a tortuous course south-east past Azamgarh town, and receives the Chhotī Sarjū, a branch from the Gogra, near Mau. The combined stream, now known as the Chhotī Sarjū, flows still south-east into Balliā, joining the Ganges two miles west of Balliā town. The Tons is remarkable for its disastrous floods, caused by the inability of the channel to carry off excessive rainfall. In 1871, 1894, and 1903, Azamgarh Town was damaged in this way.

[*Report on the River Tons Floods in October*, 1894, by A. B. Gale.]

Tons, Northern.—River in Tehrī State and Dehra Dūn District, United Provinces. It rises north of the Jamnotrī peaks (31° 5′ N., 78° 31′ E.), a few miles from the sources of the Jumna, and first issues as a stream called Sūpin, 31 feet wide and knee-deep, from a snow-bed 12,784 feet above sea-level. After a westerly course of thirty miles in a series of cascades, it receives the waters of the Rūpin, a rapid torrent, and from this point the united stream is called Tons. Nineteen miles lower down it is joined by the Pābar, and the river then forms the boundary between Jaunsār-Bāwar in Dehra Dūn District and the Native States of Jubbal and Sirmūr in the Punjab. Its course here is tortuous, but generally southerly; and after receiving the Shalwī, a considerable stream, it joins the Jumna, after a total course of 100 miles, at an elevation of 1,686 feet above sea-level. The volume of the Tons at the confluence is greater than that of the Jumna, so that it may be regarded as the principal head-water

of that river. Its average fall is 110 feet per mile, and it is thus of no use for navigation or irrigation.

Tons, Southern (*Tamasā*).—River of Central India, rising in the Kaimur range in Maihar State (24° N., 80° 9′ E.). Its nominal source is the Tamasā Kund, a tank on the Kaimur Hills, 2,000 feet above sea-level. From this point the river follows a general north-easterly course for about 120 miles, and, after traversing the rough hilly country round Maihar, flows through the level fertile country of Rewah. Here it is joined by the Satnā; and 40 miles lower down it reaches the edge of the plateau at Purwā, where, with its affluents the Bīhar and Chachaiā, it forms a magnificent series of waterfalls. The greatest fall is that of the Bīhar, which dashes over the precipice in a great sheet of water, 600 feet broad and 370 feet high. The fall of the Tons itself has a descent of about 200 feet. The Tons then flows through a level plain, spreading into a wide stream with long deep reaches, and enters the United Provinces at Deora in Allahābād District. After a north-easterly course of about 44 miles, it falls into the Ganges 19 miles below the junction of the latter with the Jumna, its total length being 165 miles. The principal tributary is the Belan, which rises in Mirzāpur and drains the central plateau of that District. After a picturesque westerly course of 95 miles, including a waterfall 100 feet in height, the Belan enters Allahābād and traverses that District and Rewah State for 40 miles, joining the Tons where it crosses the border between Rewah and Allahābād. A bridge, 1,206 feet long with seven spans, carries the East Indian Railway over the Tons near its junction with the Ganges. Navigation by boats of any size is confined to the lower reaches; floods rise as high as 25 feet in a few hours, and the highest recorded rise has been 65 feet.

Tonwarghār (including Sikarwārī).—A district of the Gwalior State, Central India, lying between 25° 49′ and 26° 52′ N. and 77° 33′ and 78° 42′ E., with an area of 1,834 square miles. It lies in the level alluvial tract north of Gwalior city. The names Tonwarghār and Sikarwārī are derived from the Sikarwār and Tonwar Thākurs, who are the chief inhabitants. The Sikarwārs are a branch of the Bargūjar Rājputs. During the Muhammadan period one of the emperors demanded a daughter in marriage from Ishwar Dās, the Rājā of Alwar. On his refusal to comply, the Bargūjar Thākurs were slaughtered wherever found. Many were put to death, but some escaped; and among them Dalku Rao, a petty chief of the clan, who fled to Fatehpur Sīkri, where he found an asylum among the Shaikhs, on promising to change the name of his clan to Sikarwār, after Sīkri. Sikarwārī fell to Sindhia in the eighteenth century. The Tonwars are Yaduvansis, and the descendants of the former rulers

of Delhi, who from 1398 to 1518 held Gwalior fort. The population of the district in 1901 was 369,414, giving a density of 199 persons per square mile. The district contains only one town, GOHAD (population, 5,343), and 704 villages, the head-quarters being at JORĀ. It is divided into four *parganas*, with head-quarters at Ambāh, Gohad, Jorā, and Nūrābād. The land revenue is Rs. 11,12,000.

Torgal.—Head-quarters of a feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, situated in 15° 57′ N. and 75° 15′ E. Population (1901), 2,477. It is enclosed by a bastioned mud wall, now somewhat dilapidated, and contains a citadel built in 1700 which is also surrounded by a mud wall. Torgal is said to have been built about 1100 by a chief named Bhutankush, and is referred to in inscriptions of the twelfth and thirteenth centuries. In 1690 it was taken from Bijāpur by Narsojī Rao, and assigned to him as a military grant by Rājā Rām, the head of the Marāthās. An old temple of Bhutnāth is said to have been built by Bhutankush, but appears to be of later date.

Tori-Fatehpur.—A petty *sanad* State in Central India, under the Bundelkhand Agency, belonging to the HASHT-BHAIYA JĀGĪRS, with an area of 36 square miles. It is bounded by the Jhānsi District of the United Provinces on all sides except the west, where it touches Dhurwai. Population (1901), 7,099. This *jāgir* was allotted by the Bundelā chief Dīwān Rai Singh to his eldest son, Dīwān Hindu Singh. He built a fort on the hill (Tori) above the village of Fatehpur, from which the name of the *jāgīr* is taken. After the establishment of British supremacy, a *sanad* was granted in 1823 to Dīwān Har Prasād confirming him in the possession of fourteen villages. The present *jāgīrdār* is Arjun Singh, who succeeded in 1880, and has exercised powers since 1897. Number of villages, 12; cultivated area, 19 square miles; revenue, Rs. 24,000. Tori-Fatehpur, the chief town, is situated in 25° 27′ N. and 79° 1′ E., 15 miles by country track from the Mau-Rānīpur station on the Jhānsi-Mānikpur section of the Great Indian Peninsula Railway. Population (1901), 1,530.

Torsā.—River of Eastern Bengal and Assam. It rises in 27° 49′ N. and 89° 11′ E., below the Tang pass which divides the Chumbi valley from the Tibet uplands. After flowing under the name of the Amo-chu in a southerly and south-easterly direction through the Chumbi valley for 60 miles and through Bhutān, it enters Eastern Bengal in Jalpaigurī District, whence it passes into Cooch Behār. In this State the Torsā bifurcates. The western branch, called the Dharlā, is joined by the Jaldhākā, to which it gives its name, and eventually falls into the Brahmaputra in 25° 40′ N. and 89° 44′ E., after a course of 245 miles from its source. The eastern branch joins the Kāljāni, which in its turn flows into the Raidāk; this subsequently meets the Gangādhar, and

the united river falls into the Brahmaputra by two mouths, the southern one being known as the Dudhkumār and the northern one as the Sankos. The valley of the Amo-chu through Bhutān is being examined with a view to the construction of a road to connect the Chumbi valley directly with the plains.

Toshām.—Village in the Bhiwāni *tahsīl* of Hissār District, Punjab, situated in 28° 54′ N. and 75° 56′ E., 23 miles south-west of Hissār town. Population (1901), 2,665. A bare rocky elevation, the highest in the District, rises abruptly above the town and desert plain to a height of 800 feet. A tank cut in the rock, half-way up the hill, forms the scene of a yearly fair, and is frequented by pilgrims, some of them from considerable distances. A *bāradari* on a small hill near the town is called Prithwī Rāj's *kacheri*, and an inscription close by was attributed by Sir Alexander Cunningham to an Indo-Scythian king, Toshāra.

Toungoo District.—District in the Tenasserim Division of Lower Burma, lying in the east of the Province, between 17° 33′ and 19° 29′ N. and 95° 48′ and 97° 13′ E., with an area of 6,172 square miles. The northern boundary is marked by a line of masonry pillars running eastwards from the Pegu Yoma, and separating it from Yamethin District and the Southern Shan States. On the east it is divided by ranges of hills from the Southern Shan States, Karenni, and Salween District; on the south by the Kyonpagu stream from Thaton District; and on the west by the Sittang river and the Kun stream from Pegu District, and by the Pegu Yoma from the Districts of Prome, Tharrawaddy, and Thayetmyo.

Physical aspects.

The District is traversed by three hill ranges, the Pegu Yoma in the west, and the Paunglaung and Nattaung in the east—well-marked chains, all with a general north and south direction, which send out numerous spurs into the plains. The Yoma on the west rises gradually from the level, reaching an elevation of barely 2,000 feet above the sea at the highest point, whereas in the eastern uplands the ascent is abrupt and the ridges in many places have an altitude of over 5,000 feet. The massing of the hills on the east and west of the Sittang leaves a plain with an average width of about 20 to 30 miles, running north and south through the heart of the District, along which the Rangoon-Mandalay railway has been carried. In the north this level is very rugged and cultivation can be carried on only in patches; in the south it is wider and the soil richer. The southern boundary of the District was extended in 1895 by the inclusion of the Shwegyin subdivision of the old Shwegyin District. This area, though hilly in portions, abounds in lakes and small streams, many of which are leased as fisheries.

The Sittang, a tortuous and oft-changing waterway, passes down the whole length of the District, bisecting it in the north and forming its western boundary in the south. Known first as the Paunglaung, it rises in the hills in the east of Yamethin, and falls into the Gulf of Martaban after draining the entire District. Navigation is rendered difficult by its winding channel and numerous sandbanks; but it is joined by several tributaries rising in the forest-clad hills of the District, and is useful for floating timber and other forest produce, as well as for irrigation. In the Pegu Yoma rise the Swa, a stream about 60 miles in length, which waters the north-west corner of the District; the Kabaung, which joins the Sittang just below Toungoo town; and, a little farther south, the Pyu, a rapid stream whose navigation is very difficult in the rains. From the Paunglaung range on the east flow the Kyaukkyi, running nearly parallel to the Sittang, and joining it a few miles north of Shwegyin; the Shwegyin, joining the main stream at Shwegyin; and the Yaukthawa, which empties itself into the Sittang 6 miles north of Mon. The Thaukyegat rises in the maze of mountains in the extreme north-east of the District, and joins the Sittang about 5 miles south of Toungoo town. Like the Sittang itself, nearly all these feeders are valuable timber channels.

While the central portion of the District is formed of the alluvium of the Sittang, the eastern is made up for the most part of the crystalline gneissic rocks of the Paunglaung range, and the western by the Miocene beds of the Pegu group constituting the Pegu Yoma. Gold occurs in the tributaries of the Shwegyin stream; copper, lead, tin, and coal also exist, but are not worked.

The forest vegetation consists chiefly of what are known as upper mixed forests, with teak as the characteristic tree. Other species constituting these forests are mentioned in the PEGU DISTRICT article. East of the Sittang river on the Karen Hills are evergreen and pine forests. The savannah riparian herbaceous vegetation is practically the same as in PEGU and PROME DISTRICTS[1].

At the foot of the hills on either side of the District the elephant, rhinoceros, *tsine* or *hsaing* (*Bos sondaicus*), tiger, leopard, bear, and wild hog are met with; and ducks and snipe are plentiful in the lowlands during the cold season.

The climate is damp, tending towards dryness in the north. The forest-clad hills on either side and the *tarai* are malarious, but the plains are on the whole fairly healthy. The temperature is recorded only at Toungoo town. There the highest reading registered was 106°

[1] See D. Brandis, *Suggestions regarding Forest Administration in British Burma* (Calcutta, 1881), p. 138; also M. H. Ferrars, *Journal of a Tour into the Karennee Country east of Toungoo* (*Indian Forester*, vol. i, p. 107).

in the shade in May, and the lowest 53° in February, the annual mean temperature being about 80°. The small hill station of Thandaung, north-east of the District head-quarters, enjoys a pleasant climate, and is becoming a popular resort for the residents of the plains. Rainfall is registered at Toungoo and Shwegyin. The average at Toungoo for the ten years ending 1904 was 77 inches. During this period the highest amount recorded was 88½ inches, and the lowest 59; the wettest months are July and August, and the driest December, January, and February. At Shwegyin, in the south-east corner of the District, the rainfall is much heavier, and has averaged 134 inches during the last five years.

History.

The District is associated historically with the Toungoo dynasty, which, during the sixteenth century, was conspicuous in the history of Burma. According to the native chronicle, Asoka had some pagodas built in 321 B.C. in the neighbourhood of the present town of Toungoo, over certain relics of Buddha; and it was in search of these that Narapadisithu, king of Pagan, who figures in Burma, Talaing, and Tavoyan chronicles as a pious and enlightened ruler, sailed up the Sittang in A.D. 1191. Having discovered and renovated the shrines, Narapadisithu left a governor in charge of Toungoo, which seems to show that previous to this the province had been a dependency of Pagan. The overlord of Pagan, however, was unable to prevent the invasion of Toungoo in 1286 by Wariyu, king of Martaban, who deposed the governor and deported him. During the collapse of the Pagan kingdom in the latter half of the thirteenth century its rulers interfered but little with the affairs of the province, and opportunity was afforded for the establishment of an independent kingdom. Thawungyi, the first king of Toungoo, was murdered in 1317 after a reign of eighteen years; and his death was the prelude to a period of truly Oriental history, king after king being assassinated by his successor. But, despite intestine unrest, the kingdom increased in power; and in 1417 the king, named Sawlutpinkara, was sufficiently powerful to be considered a suitable ally by the king of Pegu in an attack made by that monarch upon Prome. After Sawlutpinkara's death, however, the rulers of Toungoo kept their thrones only by paying homage to the king of Ava or Pegu; and this state of things lasted till the rise of Mingyinyo, who defeated the Pegu army, and moved the capital to its present site in 1510. Shortly afterwards he utterly defeated an expedition sent by the king of Ava against him, and secured the complete independence of the Toungoo kingdom. Mingyinyo was succeeded by Tabinshweti, who thrice invaded the country of the Talaings and finally secured the throne of Pegu in 1538. This monarch subsequently extended his sway over Prome and Martaban, Toungoo becoming a vassal

kingdom once more. In 1596 the reigning king of Toungoo took advantage of the collapse of the Pegu empire to throw off his dependence; but the fall of Pegu was immediately followed by the rise of the Burmese power, and the newly re-established kingdom was destined in 1612 to be brought into subjection by Mahadhammarāza, who had consolidated the kingdom of Ava. From that date Toungoo remained a dependency of the Burmese kingdom, though a fruitless attempt to shake off the Burmese yoke was made during the reign of Naungdawgyi in 1761. The south-eastern portion of the District was the scene of operations in the first Burmese War. Shwegyin was occupied by the British in 1825, but such opposition as was offered to the invaders in this quarter was farther south, beyond the limits of the District. In the second Burmese War Toungoo was entered with little resistance by a column marching from Martaban through Thaton and Shwegyin in 1853, the District having passed with the rest of the province of Pegu under British dominion in 1852. In the early days the present District was included within Toungoo District of the Pegu Division and Shwegyin District of the Tenasserim Division. In 1870 Toungoo was transferred from Pegu to Tenasserim. There were serious disturbances in Shwegyin in 1885-6, which had their origin in the annexation of Upper Burma, and were not suppressed till military assistance had been invoked. The District, as at present constituted, dates from 1895, when Shwegyin was abolished as a District, and the Shwegyin subdivision was added to the area of Toungoo.

Despite the historical importance of the District, it contains comparatively few archaeological remains. About 6 miles west of Toungoo are the ruins of a former capital, Dwayawadi, founded in 1279; and 24 miles north-west of the District head-quarters, at Swa, are the remains of another ancient town, established in 1194 by Nandathuriya, son-in-law of king Narapadisithu of Pagan. South of Toungoo, and 31 miles from it, is Zeyawadi, founded in 1550 by Bayin-naung, the famous general of Tabinshweti, who afterwards succeeded his royal master under the name of Sinbyumyashin ('the lord of many white elephants'). None of these towns, however, possesses any architectural relics of value.

Population.

The population at the last four enumerations was as follows: (1872) 136,816, (1881) 190,385, (1891) 211,784, and (1901) 279,315. The chief statistics of area and population in 1901 are given in the table on the next page.

The only towns are Toungoo, the head-quarters, and Shwegyin. In the central plain referred to above the population is thick and is yearly becoming denser. In the hills to the east and west, however, the inhabitants are very scattered, the density in the Karen areas being below 19 persons to the square mile. There is a steady flow

of immigration from Upper Burma and the Shan States. In 1901 about 226,700 of the people were Buddhists, 15,700 Animists, and 27,300 Christians, the last being a higher total than in any other District in Burma. Less than 70 per cent. of the inhabitants talk Burmese, and more than 20 per cent. Karen.

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Yedashe	925	...	235	42,456	46	+ 34	9,712
Toungoo	295	1	227	48,962	166	− 1	13,632
Leiktho	1,006	...	181	18,675	19	+ 75	1,828
Pyu*	1,589	...	484	85,416	54	+ 89	18,642
Tantabin	647	...	159	24,686	38	+ 34	4,350
Kyaukkyi	1,217	...	245	32,226	26	+ 25	4,134
Shwegyin	493	1	164	26,894	54	− 12	5,629
Total	6,172	2	1,695	279,315	45	+ 32	57,927

* Split up in 1905 into Pyu and Oktwin. For details *see* PYU TOWNSHIP.

Of the total population, Burmans numbered 180,400 in 1901; Karens (mostly in the Leiktho and Tantabin townships), 66,400; Shans, fairly well distributed over the District, 15,800; Taungthus, so numerous in Thaton and Amherst Districts, only 2,100; Talaings, 600, as compared with 74,600 in the neighbouring District of Thaton; and Chinese, 1,200.

Persons directly dependent on agriculture form 70 per cent. of the total population, compared with 67 per cent. for the whole Province, while 55,801 persons are dependent on *taungya* ('hill-slope') cultivation alone.

In 1901 native Christians numbered 26,942, most being Karens, who form the majority of the population of the Leiktho township. The Roman Catholics and the Baptists each claim about 10,000 of the Karens of the District, and the Anglicans half that number. Toungoo is one of the most important mission centres in Burma. The Anglican (S.P.G.) mission was founded in 1873, and now possesses 89 churches and 88 schools, with a staff of 3 English and 12 native clergy and 83 catechists. The Roman Catholics have 13 missionaries at work in 149 churches. Leiktho in the north-east of the District is the head-quarters of a Roman Catholic Bishop (the Vicar Apostolic of Eastern Burma). The American Baptist Mission has three agencies at Toungoo among the Karens and Burmans, with 158 churches and 75 schools worked by a staff of 8 missionaries; and an agency at Shwegyin, with 4 missionaries, 62 churches, and 33 schools. Its work in the District dates from 1853. The Methodist mission works at Thandaung.

The District has developed enormously since the railway to Mandalay was opened. Large areas of waste land have been taken up for cultivation; and the increase in this respect during the last few years has been very rapid, especially in that part of the country which the railway line traverses. The area given up to ordinary plain rice cultivation is a long strip of land running down the centre of the District for about 100 miles, and averaging 15 miles in width from east to west; and it is this stretch of country that the railway serves. An idea of the rapidity of the expansion of cultivation may be gathered from the fact that the cropped area in one single township (Pyu) is now greater than that of the whole District ten years ago. Almost every class of soil is met with in different parts, varying from the richest alluvial deposits of clay to the almost sterile soil of the old laterite formation. The best classes are found between the Sittang and two of its tributaries, the Kun and the Pyu, where the earth, being chiefly composed of recent alluvial formation, is very fertile, and admirably adapted for rice, the chief staple of the District.

Agriculture.

There is nothing particularly noteworthy in the methods of cultivation followed. Rice, the staple crop, is both sown broadcast and transplanted, the former practice being common in the richer river-side land where transplanting is unnecessary. The plough is but little used, and the harrow is the only instrument employed for tilling the ground. A system combining the broadcast and transplanting processes, known as *letkyahnok*, is sometimes followed in places where the soil is poor and the rainfall unreliable. Where it is practised the ordinary nurseries are not used, but about one-half of the fields are thickly sown as soon as the soil has been prepared. By the time the remaining plots have been ploughed, the rice in the first fields is ready to be thinned out and dibbled into them. The process requires great skill and is expensive, but has two advantages: firstly, all the fields have an equal chance of surviving the effects of a season that might have caused the later-planted crop to fail; and, secondly, no land is rendered unproductive for an entire season through being overtaxed by the dense growth of a rice nursery. Manuring the fields with cow-dung (sometimes mixed with paddy husk) is resorted to when the soil is old and poor, but otherwise little is done to enhance the bearing properties of the land.

The table on the next page gives the main agricultural statistics for 1903-4, in square miles.

Land tenures are of the usual character. The area of 'grant' land in the District is large. In 1900 the acreage of *patta* holdings still exempt from assessment was far greater in Toungoo than in any other District, and special officers have been deputed to deal with applica-

tions for grants. Most of the individual grants are small. The only recent exception is the Zeyawadi grant in the Pyu township, consisting of 1,500 acres, which was made in 1896 to the Mahārāni of Dumraon (Bengal), revenue free, to encourage immigration and relieve the stress of population suffering from the famine. Revenue collection is made partly by village headmen and partly by the old circle *thugyis*.

Township.	Total area.	Cultivated.	Forests.
Yedashe	925	64	
Toungoo	295	45	
Leiktho	1,006	2	
Pyu	1,589	250	5,337
Tantabin	647	45	
Kyaukkyi	1,217	55	
Shwegyin	493	23	
Total	6,172	484	5,337

The chief staple produced in the District is rice, of which the *kaukngε* and *kaukkyi* varieties are grown. In 1891–2 the area under rice was only 144 square miles. It has since increased enormously, and in 1903–4 amounted to 440 square miles, of which no less than 244 square miles were comprised in the Pyu township alone. The cultivation of sugar-cane has decreased, but that of tobacco on the alluvial lands in the Shwegyin township has developed largely, reaching a total of 1,500 acres in 1903–4. Sesamum in the latter year covered 2,800 acres, about half of this area being in the Shwegyin township, the rest in the Kyaukkyi and Pyu townships; and peas (*pegyi*) covered 1,600 acres, mostly in the Shwegyin and Yedashe townships. A large area (30 square miles) is under garden cultivation. Betel-nut palms are cultivated on 8,300 acres in Kyaukkyi, Tantabin, and Shwegyin. Plantains, grown chiefly in the Pyu township, cover about 4,000 acres altogether in the District. Coffee was until a few years ago grown with success on the hills in the Leiktho township, but has failed of late owing to leaf disease. An attempt to revive its cultivation is, however, to be made shortly.

As remarked above, the increase of cultivation has been most marked in the Pyu township on the west of the Sittang. The soil here is rich, and cultivation can be carried out successfully in most seasons. Near Oktwin a variety of rice called *kalā* ('foreign') was introduced a few years ago, and is said to grow successfully when the land is waterlogged; and recently a similar variety of rice called *yemanaing* ('water-resisting') was experimented with in the same part of the District, and also in the low-lying lands of the Tantabin township. The experiment was successful in the latter place, but the quality of the grain was considered inferior to that of local varieties.

Experiments have also been made with Havana tobacco seed, but the results hitherto have not been altogether satisfactory. Considerable stretches of land in the District are apparently suitable for rhea and rubber. A firm in Rangoon has already taken up a large area for the cultivation of the latter product.

Loans under the Land Improvement and Agriculturists' Loans Acts are said to be unpopular, the reason being that most of the new cultivators, who would naturally apply for loans, are strangers from Upper Burma, and have no cattle or any other property to offer as tangible security, while their co-villagers decline to stand surety for them.

Buffaloes are bred to a considerable extent, especially to the east of the Sittang; but bulls, bullocks, and cows are imported from up-country and also from the Shan States. Ponies are annually brought down from the Shan States in batches for sale in the south of the District, the prices varying greatly according to age and height. Goats are fairly common. The pasturage for cattle is ample. Large areas of waste exist on the east of the Sittang, and in the northern part of the District, where cattle can always graze without fear of scarcity for many years to come. In the southern tracts on the west of the Sittang, owing to rapid extension of cultivation, the area available for grazing is somewhat limited, but it is still sufficient for existing requirements. In addition to the formally reserved and waste areas, there are fodder reserves in portions of the District where grazing is allowed to the cattle of certain villages.

The artificially irrigated area is small, but here and there irrigation canals have been dug by local labour. There are no figures showing the area actually irrigated. Fisheries are numerous, but for the most part of no very great individual value. They are chiefly situated in or near the Sittang, and produced a revenue of Rs. 49,000 in 1903-4.

Forests, &c.

The District comprises two Forest divisions, with head-quarters at Toungoo and Shwegyin respectively. In the Toungoo division the forests are of three classes: the upper mixed, the lower mixed, and the *indaing* or laterite forests. The characteristics of the two first are much the same. The principal trees are teak, *pyingado* (*Xylia dolabriformis*), *Lagerstroemia*, *Sterculia*, *Terminalia*, and *Bombax*. In the moister parts, *kanyin* (*Dipterocarpus laevis*), *thingan* (*Hopea odorata*), and *padauk* (*Pterocarpus indicus*) occur in the third class, which prevails chiefly in the laterite regions to the north and east of the Sittang. The principal tree in this class, however, is *in* (*Dipterocarpus tuberculatus*), varied with *ingyin* (*Pentacme siamensis*), *thitya* (*Shorea obtusa*), and *thitsi* (*Melanorrhoea usitata*). There are 1,337 square miles of 'reserved' forest, and about 4,000 of 'unclassed.' The former lie chiefly on the eastern slopes of

the Pegu Yoma, and have been reserved partly because they are the more valuable, and partly because they are more accessible and less devastated by Karen methods of cultivation than the remainder. 'Unclassed' forests are protected by licences for extraction, which are given out each year and limit the area from which timber may be extracted. There are 2,015 acres of teak plantation in the District. *Padauk* is plentiful and used to be exported to the Government Gun-carriage Factory, Madras. The chief minor forest products are bamboos, wild cardamoms, and the *Rhynchodia Wallichii*, a rubber-yielding creeper. This last has not yet been turned to account, but rubber plantations are being tried with every prospect of success. The total forest revenue in 1903-4 was about 9 lakhs.

Gold is washed at and near Shwegyin, which, as its name implies, must formerly have been a gold-producing centre. English experts have examined the ground, but their reports have not been favourable enough to encourage systematic exploitation. Tin is believed to exist in the Karen Hills east of the Sittang, but its occurrence has not been definitely ascertained. Granite, laterite, and limestone are found in the District. The first named is common near Myogyi in the Toungoo township, and is used for road-metal. From thirty to fifty persons are employed in the business of extraction. Laterite is quarried in the Shwegyin township; it is worked by convicts from the Shwegyin jail, and sold to local builders and contractors. Limestone is found in large quantities in parts of the Toungoo township. It is burnt on the spot and disposed of for use in masonry buildings.

Trade and communications.

Cotton- and silk-weaving are carried on in part of the District, but these industries are declining year by year owing to the importation of foreign piece-goods. A little inlaying is done, and a Toungoo artificer received a gold medal for niello-work at the Delhi Arts Exhibition. Earthen pots are made by hand with the aid of a wheel in a few localities, and mat-plaiting is carried on by Shans in some of the outlying villages of the District.

The Yabeins (*see* PROME DISTRICT, under Arts and Manufactures) and Karens rear silkworms, and supply the market with raw silk. An attempt has been made to introduce foreign varieties of silkworm, but the growers are conservative and dislike the trouble that the care of the new kinds entails. The quality of the indigenous silk is not inferior in itself, but it suffers from irregularity of skein, which is due to the careless way in which it is wound, sometimes from five, and sometimes from fifteen cocoons. If the same number were adhered to, the present roughness would be avoided and the quality of the manufactured article would be greatly improved.

There are two rice-mills in the District, one at Toungoo and one

at Yedashe, and the out-turn is exported to Upper Burma. Saw-mills (thirteen in all), which have been established in the Toungoo, Yedashe, and Pyu townships, cut up *in* and *pyingado* timber, which is sold in Toungoo and Rangoon. There is a distillery at Toungoo, where liquor, distilled by European methods from jaggery and rice, is sold to the local liquor licensees.

A steady frontier trade is carried on between the District and Karenni and the Southern Shan States, the goods being carried by Shan and Karen bullock caravans over two routes, via Leiktho and via Kyaukkyi. In 1903–4 the imports from the Southern Shan States were valued at 5½ lakhs (cattle, Rs. 4,25,000; ponies and mules, Rs. 86,000), and those from Karenni at Rs. 13,000 (consisting only of silver and other metal-work). The exports to the Southern Shan States were valued in the same year at only 1¾ lakhs, 1⅓ lakhs being silver treasure, and the other items betel-nut (Rs. 8,500), dried fish (Rs. 8,000), raw silk, jaggery, *thitsi* varnish, and timber from Toungoo, and re-exported piece-goods and cotton-yarn.

The Rangoon-Mandalay railway runs through the District, from mile 120 to mile 215, with fourteen stations, including Toungoo and the township head-quarters of Yedashe and Pyu. The railway provides an express service twice daily to Mandalay and Rangoon, in addition to local trains.

Outside municipal limits only 13 miles of metalled roads are maintained, consisting for the most part of short metalled stretches on the longer unmetalled roads. In all, 153 miles of unmetalled roads are kept up from Provincial and 138 from Local funds. The former include 44 miles of the old Toungoo frontier road, 24 miles of the Thandaung road, 44 miles of the Toungoo-Pegu road, the Nancho road (22 miles), and 12 miles of the Thayetmyo road. Among the Local fund highways are a road from Shwegyin to Kyaukkyi, a road from Shwegyin to the hills, and a road from Taye to Bonmadi. There are fifteen ferries on the Sittang, and a private launch plies on that river between Shwegyin and Pazunmyaung, above which point steam navigation is not safe.

Administration.

The District is divided into three subdivisions: Toungoo, containing the YEDASHE, TOUNGOO, and LEIKTHO townships; Pyu, containing the PYU, OKTWIN, and TANTABIN townships; and Shwegyin, containing the KYAUKKYI and SHWEGYIN townships. The townships are under the usual executive officers, subordinate to whom are 706 *ywathugyis* (village headmen). The head-quarters staff includes, besides the Deputy-Commissioner and other District officers, the adjutant of the Toungoo military police battalion, and a special recruiting officer for the Karen military police. Toungoo is the head-quarters of the Superintending Engineer in charge

of the Toungoo Public Works circle, and the District forms a division of that circle, with two subdivisions. There are three Deputy-Conservators of Forests, one each in charge of the Toungoo and Shwegyin Forest divisions, and one on working-plans duty at Shwegyin.

Toungoo forms, with Pegu, the charge of a District Judge, who has his head-quarters at Pegu. The subdivisional officers and four of the township officers are judges of their respective courts; but there are also two whole-time civil township judges, one for the Pyu and Oktwin townships, the other for the Toungoo and Yedashe townships. The District forms part of the Tenasserim civil and sessions divisions, the head-quarters of which are at Moulmein.

Criminal work is on the increase. There is a good deal of violent crime, and dacoity is of not infrequent occurrence in the dry season. Opium is still smuggled from the Shan States, and *gānja* grows wild on the Pegu Yoma and is brought down by agents who sell it illicitly to native customers on the railway line.

Land revenue has increased owing to the rush for cultivable land, which is due partly to the natural growth of the population, but more still to immigration. The same causes account for increases under the head of capitation tax and fishery revenue. Income tax has been swollen by the growth of small towns along the line of the railway and by the same general advance in prosperity, which is further evidenced by the saw- and rice-mills that have been started in the last few years. Land assessment in lieu of capitation tax is on the decrease.

Before the annexation of Pegu the revenue consisted chiefly of the house or family tax, assessed on Burmans and Karens alike, with small imposts levied on fisheries and betel and palm plantations, and a land tax per yoke of oxen. Local officials received all fines and fees in judicial proceedings. After annexation, the revenue reached nearly a lakh in 1855–6, about a quarter of this being land tax, a quarter capitation tax, and a quarter fisheries, customs, and excise.

Land revenue was first collected at the original rates, which were revised five years later, and again in 1880–1. From that date until regular settlement operations were introduced into the District between 1898 and 1900 the rates in force varied for rice land from 6 annas to Rs. 1–12 per acre; for garden land from Rs. 1–8 to Rs. 2–8; and for miscellaneous cultivation stood at Rs. 1–8 all round. In 1898–9 the richest portion of the southern half of the District was settled, and the following revised rates were introduced in the Pyu township and the Shwegyin subdivision: for rice land, R. 1 to Rs. 3–4; for garden land, Rs. 2 to Rs. 6; for miscellaneous cultivation, Rs. 3; and for sugar-cane cultivation, Rs. 4 to Rs. 6 per acre. In 1899–1900 the operations were extended to a considerable portion of the rest of the District, including parts of the Toungoo subdivision

and the Tantabin township of the Pyu subdivision. The rates sanctioned at this settlement were: for rice land, from 8 annas to Rs. 2–2 (to be raised to Rs. 2–14 after five years); for gardens, Rs. 2–8; for miscellaneous cultivation, Rs. 3; and for *taungya* cultivation, Rs. 1–8 per acre. Both the settlements were for fifteen years. The average assessment per acre for all kinds of land amounts to a fraction under Rs. 2. The average area of a holding varies from 2⅓ to 16 acres for rice land; from ½ to 3½ acres for gardens; from ¼ to 11 acres for miscellaneous cultivation; and from ½ to 30 acres for sugar-cane.

Owing to modifications of the District boundaries, trustworthy comparative statistics of revenue for past years are not obtainable. The land revenue was 4·5 lakhs in 1900–1 and 6·4 lakhs in 1903–4. The total revenue collected in 1900–1 was 7 lakhs, and in 1903–4 more than 10 lakhs.

The District cess fund, administered by the Deputy-Commissioner for the upkeep of roads and various local needs, had an income in 1903–4 of 1·2 lakhs, nearly one-third of which was devoted to public works.

There are two municipalities, TOUNGOO and SHWEGYIN; and the forming of a town committee for Pyu, the head-quarters of the Pyu township, is under consideration.

The police force consists of a District Superintendent, an Assistant Superintendent, 4 inspectors, 10 head constables, 38 sergeants, and 311 constables. The Toungoo and Leiktho subdivisions are ordinarily in charge of Assistant Superintendents, the men being distributed in fifteen police stations and outposts. Toungoo is the head-quarters of the Toungoo battalion of military police; and 150 men of this force are stationed in the District—45 at Toungoo, 30 at Shwegyin, and 15 each at the outlying township head-quarters. Their chief duties consist in escorting prisoners and treasure, and in guarding lock-ups. The jail at Toungoo has accommodation for 674 prisoners.

Instruction is chiefly in the hands of religious teachers, Christian and Buddhist. In spite, however, of the fact that the missionaries have done so much in the cause of education, the standard of literacy in Toungoo is low, the proportion of persons able to read and write being only 20·7 per cent. (35·6 males and 5 females) of the population in 1901. This is probably due to the preponderance of the Karen element. The number of pupils on the rolls was 11,389 in 1901 and 9,952 in 1904 (including 1,767 girls). In 1903–4 there were 2 special, 16 secondary, 192 primary, and 269 elementary (private) schools. Of the vernacular schools, about two-thirds are Burman and one-third Karen. The total expenditure on education in 1903–4 was Rs. 65,300, derived from the following sources: Provincial (Rs. 15,900), municipal (Rs. 14,100), District cess fund (Rs. 11,100), subscriptions (Rs. 19,700), and fees (Rs. 4,500).

There are two hospitals with accommodation for 95 inmates; and 20,320 patients were treated in 1903, of whom 962 were in-patients, and 403 operations were performed. The total income was Rs. 12,900, municipal funds contributing Rs. 9,000, Provincial funds Rs. 1,100, and the District cess fund Rs. 1,500.

Vaccination is compulsory only in the two municipal areas. It does not, unfortunately, gain in popularity, and it is said that inoculation is still practised throughout the District. In 1903–4 the number of persons successfully vaccinated was 8,733, representing 31 per 1,000 of population.

[Captain H. Des Voeux, *Settlement Report* (1900); W. V. Wallace, *Settlement Report* (1901).]

Toungoo Subdivision.—Subdivision of Toungoo District, Lower Burma, containing the YEDASHE, TOUNGOO, and LEIKTHO townships, with head-quarters at Toungoo town.

Toungoo Township.—Head-quarters township of Toungoo District, Lower Burma, lying between 18° 52′ and 19° 11′ N. and 96° 1′ and 96° 37′ E., with an area of 295 square miles. It is comparatively small, forming a wedge driven in between the large townships of Yedashe and Pyu, with its base lying along the eastern boundary of the Sittang plain, and its point in the Pegu Yoma. The population was 49,490 in 1891, and 48,962 in 1901 (including 3,604 Shans and 1,077 Karens), distributed in one town, TOUNGOO (population, 15,837), the head-quarters of the District and township, and 227 villages. The area cultivated in 1903–4 was 45 square miles, paying Rs. 53,000 land revenue.

Toungoo Town.—Head-quarters of the District of the same name in Lower Burma, situated in 18° 55′ N. and 96° 28′ E., on the Rangoon-Mandalay railway, 166 miles from Rangoon and 220 miles from Mandalay, close to the right bank of the Sittang river, which separates it from the western spurs of the Karen Hills. The town, which is well wooded and picturesque, is regularly laid out, and contains a good bazar, courthouses, jail, hospital, and Roman Catholic, Anglican, and Baptist churches and schools for Karens and Burmans. Near the railway station and close to the railway line is a solidly built square brick fort, a relic of the days when Toungoo was an important post on the frontier of Lower Burma. Up to 1893 Toungoo was a cantonment of some importance, but as the country quieted down the troops were withdrawn, and it has ceased to be a military station. On the west, inside the old wall, is a sheet of water about 1½ miles in length and half a mile in breadth; and surrounding the town is the old fosse, 170 feet wide, full of water in the rains. The site of the town is slightly higher than the surrounding country, which is open and partially cultivated, and during the rainy season becomes an extensive marsh.

The Sittang is of no great width at Toungoo. It is not, however, bridged, though the construction of a bridge is in contemplation.

Toungoo is a corruption of the Burmese *taung-ngu* or 'hill spur.' The history of the town is bound up with that of the kingdom of Toungoo, at one time independent but afterwards a dependency of Pegu. In 1510 Mingyinyo moved his capital to where Toungoo now stands from a site some 6 miles distant to the south-west. Of the pagodas marking the original city only brick ruins remain. During the second Burmese War the town was occupied without opposition by a column from Martaban in 1853.

The population of Toungoo at the last four enumerations was as follows: (1872) 10,732, (1881) 17,199, (1891) 19,232, and (1901) 15,837. The decrease between 1891 and 1901 is due, to a large extent, to the abolition of the cantonment. Of the total in 1901, Musalmāns numbered 2,098, Hindus 1,635, and Christians 626. The Karen-speaking population is only 207.

The town is not noted for any particular industry. Cotton- and silk-weaving are carried on as domestic industries, and metal-work of all kinds is done. There are two saw-mills, a rice-mill, a distillery, and a tannery. The town is an important railway centre.

In addition to the usual officials, there is a Superintending Engineer in charge of the Toungoo Public Works circle. Toungoo was constituted a municipality in 1874. During the ten years ending 1901 the receipts and expenditure averaged between Rs. 75,000 and Rs. 76,000. In 1903-4 the income amounted to Rs. 84,000, the chief items being Rs. 41,600 from markets, Rs. 10,600 from the house and land tax, and Rs. 7,600 from the lighting tax. The expenditure in the same year was Rs. 99,000, including conservancy (Rs. 24,500), hospitals (Rs. 10,000), and roads (Rs. 11,000). A scavenging tax has been imposed recently.

Toungoo is well provided with educational institutions. The American Baptist Mission maintains two Karen and one Burman school, and the Roman Catholics and Anglicans maintain schools for both boys and girls. In addition to the missionary seminaries, the town contains a vernacular middle school, and the municipality contributes liberally towards education. The town hospital is situated on rising ground near the railway, with accommodation for 68 in-patients.

Tranquebar (vernacular *Tarangampādi*, which would mean 'the village of the waves'; but *Sadanganpādi* according to an old inscription).—Town and port in the Māyavaram *tāluk* of Tanjore District, Madras, situated in 11° 2′ N. and 79° 52′ E., 18 miles north of Negapatam. Population, including the suburb of Poraiyār (1901), 13,142. Tranquebar first rose into importance as a Danish settlement, the

Danish East India Company having in 1620 obtained a grant of land from the Rājā of Tanjore and built a fort here. In 1624 it passed to the King of Denmark. In the war of 1780–1 Haidar exacted a fine of Rs. 1,40,000 from the Danes for supplying arms to the Nawāb of Arcot. In 1801 Tranquebar was taken by the British, but was restored in 1814. It was finally purchased by the British in 1845 for 12½ lakhs of rupees.

In 1706 the first Protestant missionaries, Ziegenbalg and Plütschau, landed at Tranquebar and founded a mission under the auspices of King Frederick IV of Denmark. A church, one of the earliest Protestant places of worship in India, was built in 1718. In the eighteenth century the mission spread its influence over a great part of the Tamil country; but not long after Swartz left Tranquebar in 1762 it began to languish, and by 1820 had practically come to an end. In 1841, however, it was succeeded by the Dresden Society, or, as it was called later, the Leipzig Evangelical Lutheran Mission, which now maintains a training school for teachers, an industrial school, and a printing press, besides boarding-schools for boys and girls. There is also an upper secondary school. Tranquebar was a busy port in Danish times. Under English rule it drew away the trade of Negapatam owing to its better anchorage, and continued to flourish until 1861, when the railway restored the trade to Negapatam. It is now of greatly diminished importance, and its trade consists chiefly of the export of rice on a small scale. It was the head-quarters of the Collector of Tanjore from 1845 to 1860, and of the District Judge from 1860 to 1884, with a short interval. A deputy-*tahsīldār* is now the chief officer. It is one of the healthiest spots in the District and has a quaint beauty of its own. The old citadel, called the Dansborg, for some time served as a jail, but is now in ruins. A small portion is, however, used as a customs office. The European bungalows are mostly within the fort, but the majority of the native population reside in Poraiyār, a mile inland.

[Kay Larsen, *Trankebar* (Copenhagen, 1907).]

Trashi-chöd-zong.—Summer capital of the State of Bhutān, situated in 27° 20′ N. and 91° 34′ E. It lies in the valley of the Chinchu or Raidāk river, entirely surrounded by lofty mountains.

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see vol I